

VOLKSWAGEN

GROUP OF AMERICA

Confidential Information Removed

Mr. Linc Wehrly
Compliance Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency
2000 Traverwood
Ann Arbor, Michigan 48105

Leonard W. Kata Name
Senior Manager Title
EEO Department
248-754-4204 Phone
248-754-4207 Fax
leonard.kata@vw.com E-Mail

August 25, 2016 Date

Subject: Off-Cycle Greenhouse Gas (GHG) Credit Request – 2012-2013 Model Year

Dear Mr. Wehrly:


Volkswagen Group of America, Inc. ("Volkswagen")¹ herewith submits a final application for off-cycle greenhouse gas (GHG) credits, in accordance with the provisions of 40 CFR 86.1869-12(d). As described in our July 31, 2014 preliminary request, Volkswagen has reviewed its 2012 and 2013 product offering and has concluded that many of the vehicles incorporate features that qualify as off-cycle technologies eligible for GHG credit. These features include high-efficiency lighting, active aerodynamic improvements, engine idle start-stop, engine warm-up, transmission warm-up, and thermal control technologies (including glazing, paint, and seat ventilation).

VOLKSWAGEN GROUP OF AMERICA, INC.
3800 HAMLIN ROAD
AUBURN HILLS, MI 48326
PHONE +1 248 754 5000

Enclosed is the formal application for these features. The compliance categories and applicable vehicle models are identified. A brief explanation of the technologies is also provided. The credit values are those determined in accordance with the provisions of 40 CFR 86.1869-12(b) and using procedures described in the Technical Support Document (ref. Joint Technical Support Document: Final Rulemaking for 2017-2025 Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards; EPA-420-R-12-901, August 2012). This application contains information that Volkswagen deems confidential and is identified accordingly.

If further discussion is required, Volkswagen would be pleased to meet with you and your staff at your convenience.

Best regards,
VOLKSWAGEN GROUP OF AMERICA, INC.



Leonard W. Kata
Senior Manager, Emission Regulations and Certification
Engineering and Environmental Office

Enclosures

VWGoA Request for Model Year 2012-2013 Greenhouse Gas Off-Cycle Credits

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***Appendices removed due to information deemed confidential**

Section 1--VWGoA Off-Cycle Technology GHG Credit Request for MY 2012-2013: GHG Credit Summary

MY 2012 Summary (PC + LT)

Passenger Car				
Technology		Sales		Credit
High Efficiency Lighting	[		]	18,711
Active Aerodynamics	[		]	806
Engine Idle w Stop/Start	[]	
Active Trans Warm-up	[		]	62,361
Active Engine Warm-up	[		]	1,276
Ventilated Seats	[		]	167
Solar Reflective Paint	[		]	10,706
Thermal Glazing	[		]	9,009
				103,036

Light Duty Truck				
Technology		Sales		Credit
High Efficiency Lighting	[		]	4,572
Active Aerodynamics	[		]	55
Engine Idle w Stop/Start	[		]	302
Active Trans Warm-up	[		]	2,469
Active Engine Warm-up	[]	
Ventilated Seats	[		]	1,196
Solar Reflective Paint	[		]	1,534
Thermal Glazing	[		]	9,708
				19,836

MY 2013 Summary (PC + LT)

Passenger Car				
Technology		Sales		Credit
High Efficiency Lighting	[		]	25,601
Active Aerodynamics	[		]	610
Engine Idle w Stop/Start	[		]	2,961
Active Engine Warm-up	[		]	5,056
Active Trans Warm-up	[		]	117,122
Ventilated Seats	[		]	2,326
Solar Reflective Paint	[		]	12,136
Thermal Glazing	[		]	9,978
				176,045

Light Duty Truck				
Technology		Sales		Credit
High Efficiency Lighting	[		]	6,272
Active Aerodynamics	[		]	63
Engine Idle w Stop/Start	[		]	1,047
Active Engine Warm-Up	[		]	1,431
Active Trans Warm-up	[		]	2,290
Ventilated Seats	[]	2,476
Solar Reflective Paint	[]	1,164
Thermal Glazing	[]	9,854
				24,597

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Section 2.A--High Efficiency Exterior Lighting

Definition:

High efficiency exterior lighting means a lighting technology that, when installed on the vehicle, is expected to reduce the total electrical demand of the exterior lighting system when compared to conventional lighting systems.

Credits:

Credits are determined by comparing wattage of new high efficiency exterior lights to the wattage of the baseline lights that are replaced.

See Section 3 & 4 for credit calculations.

Technical Description:

See Appendix A to see more details of lighting systems.

VW Group Methodology:

VW Group currently uses high efficiency exterior lights on the following lighting components:

- Low beam
- High beam
- Parking/position
- Turn signal, front
- Side marker, front
- Tail
- Turn signal, rear
- Side marker, rear
- License plate

The credits VW Group is requesting are calculated by using EPA's formula from the Joint TSD based on our measured baseline and new light wattage.

The fleet credit will be calculated based on credit for each type of vehicle, vehicle lifetime miles and U.S. sales volume for applicable 2012 and beyond model year products.

Section 2.B--Active Aerodynamics Improvements

Vehicle Equipped with Active Aerodynamic Improvements.

For MY 2012 and 2013, The Audi A8, A8L (PC) and Audi Q7 (LDT) both use active air suspension to lower the vehicle and improve aerodynamic efficiency. Also, for MY 2012 and 2013 the Audi A7, TT, TT Roadster, and TT RS (MY 2013 only) are equipped with an active spoiler that automatically engages at certain speeds to generate a downforce on the rear ends which improves the handling characteristics and also increases the base pressure at the rear while simultaneously decreasing the aerodynamic drag.

Definition:

Active aerodynamic improvements means technologies that are automatically activated under certain conditions to improve aerodynamic efficiency (e.g., lowering of the coefficient of drag, or Cd), while preserving other vehicle attributes or functions.

Technical Description:

See sections 3 & 4 for credit calculations.

Credits:

(A) The credit for active aerodynamic improvements for passenger automobiles shall be calculated using the following equation, and rounded to the nearest 0.1 grams/mile:

Where:

$$\text{Credit} \left(\frac{g}{mi} \right) = 19.36 \times CD_{reduced}$$

CD_{reduced} is the percent reduction in the coefficient of drag (Cd), shown as a value from 0 to 1. The coefficient of drag shall be determined using good engineering judgment consistent with standard industry test methods and practices.

(B) The credit for active aerodynamic improvements for light trucks shall be calculated using the following equation, and rounded to the nearest 0.1 grams/mile:

Where:

$$\text{Credit} \left(\frac{g}{mi} \right) = 33.16 \times CD_{reduced}$$

CD_{reduced} is the percent reduction in the coefficient of drag (Cd), shown as a value from 0 to 1. The coefficient of drag shall be determined using good engineering judgment consistent with standard industry test methods and practices.

Section 2.C--Active Engine Idle Start-Stop

Definitions:

Engine idle start-stop means a technology which enables a vehicle to automatically turn off the engine when the vehicle comes to a rest and restarts the engine when the driver applies pressure to the accelerator or releases the brake. Off-cycle engine start-stop credits will only be allowed for a vehicle if the Administrator has made a determination under the testing and calculation provisions in 40 CFR Part 600 that engine start-stop is the predominant operating mode for that vehicle.

Credits:

The passenger automobile credit for engine idle start-stop systems is 2.5 grams/mile, provided that the vehicle is equipped with an electric heater circulation system (or a technology that provides a similar function). For vehicles not equipped with such systems the credit is 1.5 grams/mile.

The light truck credit for engine idle start-stop systems is 4.4 grams/mile, provided that the vehicle is equipped with an electric heater circulation system (or a technology that provides a similar function). For vehicles not equipped with such systems the credit is 2.9 grams/mile.

Technical Description:

See sections 3 & 4 for credit calculations.

Description of Volkswagen Group Stop Start System:

The start/stop system is operated via the engine management and is integrated into the engine control unit software. The start/stop system is in the following engines for MY 2012: 3.0L TFSI for the Volkswagen Touareg Hybrid

For MY 2013, the start/stop system is in the following engines for MY 2013: 1.4L TSI for the Jetta Hybrid, 2.0L TFSI for the Audi Q5 Hybrid, and the 3.0L TFSI for the Volkswagen Touareg Hybrid. All are equipped with "default on" modes for the start/stop system.

It is important for the start/stop system to assess whether the charge state of the starter battery will allow the engine to be restarted. This procedure is called starting voltage prediction. It indicates that all properties and values of the engine related to another engine start are evaluated.

Therefore the battery condition and the engine map are constantly analyzed.

On the basis of the starting voltage prediction, it is decided whether the start/stop mode can be used or whether certain electrical consumers should be switched off so that the power requirement is not further increased.

Section 2.D--Active Transmission Warm-up

Vehicles Equipped with Active Transmission Warm-up Technologies.

The DQ-250 and AQ-250 transmissions qualify for active transmission warm-up off-cycle credit technologies. In MY 2012 vehicles equipped with DQ-250 transmissions include the Audi A3, TT Coupe, TT Roadster, Volkswagen Jetta TDI, Jetta Sportswagen TDI, Jetta GLI, CC, CC 4Motion, Passat TDI, GTI, Eos, Beetle, and Beetle Convertible. For MY 2013, vehicles equipped with DQ-250 transmissions include the Audi TT Coupe, TT Roadster, Volkswagen Beetle, Beetle Convertible, Beetle TDI, Beetle Convertible TDI, EOS, CC, Golf TDI, GTI, Jetta, Jetta Sportswagen TDI, Jetta TDI, CC 4Motion, and Passat

In MY 2012 vehicles containing the AQ-250 include the Volkswagen Beetle, Beetle Convertible, Jetta Sportswagen, Golf, and Passat. For MY 2013, vehicles equipped with the AQ-250 transmission include the Volkswagen Beetle, Beetle Convertible, Jetta GLI, Jetta Sportswagen, Jetta, Golf, and Passat.

For MY 2012 and MY 2013 vehicles on the MLB platform also share transmission warm-up technologies. These vehicles include 3.0L TFSI Audi A6, A7, and the 6.3L W12 A8 L.

Technical Description:

See sections 3 & 4 for credit calculations.

Definition:

Active transmission warm-up means a system that uses waste heat from the vehicle to quickly warm the transmission fluid to an operating temperature range using a heat exchanger, increasing the overall transmission efficiency by reducing parasitic losses associated with the transmission fluid, such as losses related to friction and fluid viscosity.

Credits:

- (A) The passenger automobile credit is 1.5 grams/mile.
- (B) The light truck credit is 3.2 grams/mile.

VWGoA Methodology:

Using the methodology as described in the Joint TSD regarding off-cycle credit determination, we intend to apply the pre-defined credit listed for each active transmission warm-up technologies for passenger cars and light-duty trucks. The fleet credit will be calculated based on credit for each model type of vehicle, vehicle lifetime miles and U.S. sales volume for applicable for MY 2012 & MY 2013.

Section 2.E--Active Engine Warm-up

Vehicles Equipped with active engine warm-up technologies:

For MY 2012, Audi vehicles equipped with the 4.2L V8FSI engines used standing water to actively heat the engine.

In MY 2013, Volkswagen vehicles equipped 2.0L TFSI Gen III engines were equipped with an integrated exhaust manifold. This integrated exhaust manifold supported rapid warm-up of the engine for the Volkswagen Beetle, Beetle Convertible, and the Jetta GLI.

Also for MY 2013, The Audi S6, S7, S8 all equipped with 4.0L TFSI engine also integrated the standing water technology. The Audi RS 5/RS 5 Cabrios continued to use the standing water technology equipped on the Audi RS5/RS 5 Cabrio. The MY 2013 Audi Q7 TDI used a split-cooling system to actively heat the 3.0L TDI engine.

Technology Description:

See sections 3 & 4 for credit calculations.

Definition:

Active engine warm-up means a system using waste heat from the vehicle to warm up targeted parts of the engine. This reduces engine friction losses and enables the closed-loop fuel control more quickly allowing for a faster transition from cold operation to warm operation, thereby decreasing CO2 emissions, and increasing fuel economy.

Credits: (40 CFR §86.1869-12 (b) (vii).)

Active Engine Warm Up –

(A) The passenger automobile credit is 1.5 grams/mile.

(B) The light truck credit is 3.2 grams/mile.

VWGoA Group Methodology:

Using the methodology as described in the Joint TSD regarding off-cycle credit determination, we intend to apply the pre-defined credit listed for each active engine warm-up technologies for passenger cars and light-duty trucks. The fleet credit will be calculated based on credit for each model type of vehicle, vehicle lifetime miles and U.S. sales volume for applicable for MY 2012 & MY 2013.

Section 2.F--Thermal Control Technologies-Active Seat Ventilation

Definition:

Active Seat Ventilation, a device which draws air and forces air or transfers heat from the seating surface which is in contact with the occupant and exhausts it to a location away from the seat. At a minimum, the front driver and passenger seat must utilize this technology for a vehicle to be eligible for credit. If the vehicle only has two seats, then these seats must have active seat ventilation for a vehicle to be eligible for credit.

Credit: (40 CFR §86.1869-12 (b) (viii) (B))

Active Ventilation –

(A) The passenger automobile credit is 1.0 grams/mile

(B) The light truck credit is 1.3 grams/mile

See sections 3 & 4 for credit calculations.

VW Group Methodology:

Per the methodology described in the Joint TSD regarding credit determination, we intend to apply the pre-defined credit listed above for each active engine warm-up application per vehicle type (car/truck). The fleet credit will be calculated based on credit for each type of vehicle, vehicle lifetime miles and U.S. sales volume for applicable 2012 and 2013 model year products

Section 2.G--Thermal Control Technologies-Solar Reflective Surface Coating

Definition:

Solar reflective surface coating means a vehicle paint or other surface coating which reflects at least 65 percent of the impinging infrared solar energy, as determined using ASTM standards E903, E1918-06, or C1549-09 (incorporated by reference in § 86.1). The coating must be applied at a minimum to all of the approximately horizontal surfaces of the vehicle that border the passenger and luggage compartments of the vehicle, (e.g., the rear deck lid and the cabin roof).

Credits:

- (A) The passenger automobile credit is 0.4 grams/mile.
- (B) The light truck credit is 0.5 grams/mile.

Technical Data:

See sections 3 & 4 for credit calculations and Appendix G to see VW Group paints.

Description of System:

VW Group currently utilizes five vehicle paints that reflects at least 65 percent of the impinging infrared solar energy. The paint was tested per the ASTM standard E903 and ISO 9050 standards.

VW Group Methodology:

Determine the percent of impinging infrared solar energy for each paint using ASTM standards E903, and ISO 9050 standards.

- Apply the EPA estimate of credits due to solar reflective paint results in a credit of 0.4 g/mi for cars and 0.5 g/mi for trucks.
- The fleet credit will be calculated based on credit for each type of vehicle, vehicle lifetime miles and U.S. sales volume for applicable 2012 and 2013 model year products.

Section 2.H--Thermal Control Technologies-Thermal Glass/Glazing Technologies

Definition:

Glass/Glazing Technologies can reduce the amount of solar heat gain in the cabin by reflecting or absorbing some of the infrared solar energy. Total Solar Transmittance or Tts which expresses the percentage of solar energy which passes through the glazing.

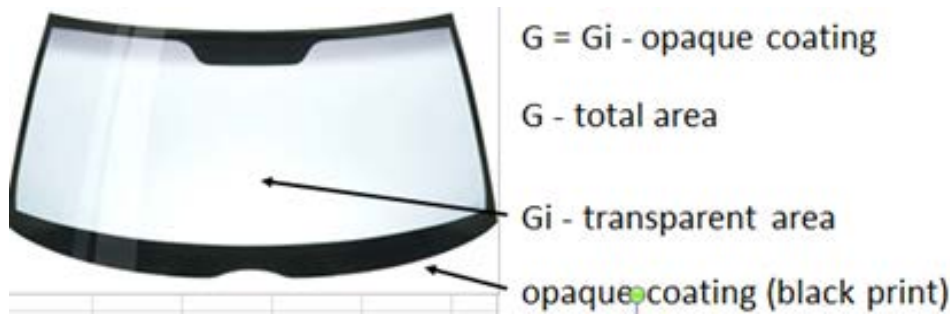
(p. 5-101 of EPA’s Joint Technical Support Document: Final Rulemaking for 2017-2025 Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards.)

Credits:

See Section 3 & 4 for thermal glazing credit calculations

(40 CFR 86.1869-12(b)(viii)(A))

- (A) The maximum passenger automobile credit is 2.9 grams/mile.
- (B) The maximum light truck credit is 3.9 grams/mile.



	Glass	Var	front	front left	front right	rear left	rear right	rear left fix	rear right fix	window in left (sidewall)	window in right (sidewall)	rear	panorama roof	G = Total transparent area	Off cycle credit
			A	B	B	C	C	D	D	E	E	F	G	m ²	g CO ₂ / mile
LDT															
	Tts-Value Base LDT (%)														
VW316 Tiguan	Tts-Value (%)	green tinted													

Section 1--Thermal Control Technologies-Thermal Glass/Glazing Technologies

			area (m ²)	dark green tinted
			transparent area (m ²)	
	0.4	no		green tinted
	0.4	yes		green tinted
	0.4	no		dark green tinted
	0.4	yes		dark green tinted
			type thickness in mm	green tinted
			type thickness in mm	dark green tinted

Technical Description:

See Appendix H for more details on thermal glazing technologies.

VW Group Methodology:

Step-1:

Create a list for each model with Thermal Control Glazing

Step-2:

Calculate the possible credit per vehicle using the following equations for both cars and trucks, credits are capped as follows:

$$Credit = \left[Z \times \sum_{i=1}^n \frac{T_i + G_i}{G} \right]$$

CAFE Passenger Car Definition (See Part 523) Max Credit = 2.9 gr/mi

CAFE Light Truck Definition (See Part 523) Max Credit = 3.9gr/mi

Equation Variables

Z = 0.3 for passenger automobiles and 0.4 for light trucks

Gi = the measured glass area of window i, in square meters and rounded to the nearest tenth

G = the total glass area of the vehicle, in square meters and rounded to the nearest tenth

Ti = the estimated temperature reduction for the glass area of window i, determined using the following formula:

Ti = 0.3987 × (Ttsbase – Ttsnew)

Where:

Ttsnew = the total solar transmittance of the glass, measured according to ISO 13837, "Safety glazing materials—Method for determination of solar transmittance" (incorporated by reference in § 86.1)


Ttsbase = 62 for the windshield, side-front, side-rear, rear-quarter, and backlite locations, and 40 for rooflite locations

Section 2--VWGoA MY 2012 Total Off-Cycle Credit Summary

MY2012 VWGoA Off-Cycle Summary (PC + LT)

Passenger Car			
Technology		Sales	Credit
High Efficiency Lighting	[		18,711
Active Aerodynamics	[		806
Engine Idle w Stop/Start	[
Active Trans Warm-up	[		62,361
Active Engine Warm-up	[		1,276
Ventilated Seats	[		167
Solar Reflective Paint	[		10,706
Thermal Glazing	[		9,009
			103,036

Light Duty Truck			
Technology		Sales	Credit
High Efficiency Lighting	[		4,572
Active Aerodynamics	[		55
Engine Idle w Stop/Start	[		302
Active Trans Warm-up	[		2,469
Active Engine Warm-up	[
Ventilated Seats	[1,196
Solar Reflective Paint	[1,534
Thermal Glazing	[9,708
			19,836

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Section 2--VWGoA MY 2012 High Efficiency Lighting - PC

Off Cycle Technology	Make	Impacted Carlines (VW)	Drivetrain	Engine	Transmission	Technologies	Trim Level / Option Code	Factory Model Code	GHG Class	Low Beam	High Beam	Side Marker Front	Tail	Turn Signal Front	Side Marker Rear	Parking Position	Turn Signal Rear	License Plate	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)	
High Efficiency Lighting	Audi	A3	FWD	2.0L TDI	S6	Xenon Headlights	All	8PA5PX	PC													377
High Efficiency Lighting	Audi	A5 Cabriolet	FWD	2.0L TFSI	AV	Xenon Headlights, LED Tail lights	WPT, WPS	8F756H	PC													97
High Efficiency Lighting	Audi	A3	FWD	2.0L TFSI	M6	Xenon Headlights	All	8PA59X	PC													63
High Efficiency Lighting	Audi	A4 Avant Quattro	AWD	2.0L TFSI	M6	Xenon Headlights, LED Tail lights	WTS, WPT, WPS	8K2569	PC													338
High Efficiency Lighting	Audi	A5 Quattro	AWD	2.0L TFSI	M6	Xenon Headlights, LED Tail lights	WPT, WPS	8T3569	PC													129
High Efficiency Lighting	Audi	A6	FWD	2.0L TFSI	S8	Xenon Headlights	WPS	4G25MH	PC													301
High Efficiency Lighting	Audi	A3	FWD	2.0L TFSI	S6	Xenon Headlights	All	8PA59C	PC													256
High Efficiency Lighting	Audi	A3 Quattro	AWD	2.0L TFSI	S6	Xenon Headlights	All	8PA59L	PC													62
High Efficiency Lighting	Audi	TT Coupe quattro	AWD	2.0L TFSI	S6	Xenon Headlights, LED Tail lights	All	8J86VL	PC													74
High Efficiency Lighting	Audi	TT Roadster quattro	AWD	2.0L TFSI	S6	Xenon Headlights, LED Tail lights	All	8J354L	PC													34
High Efficiency Lighting	Audi	A4 Avant Quattro	AWD	2.0L TFSI	S8	Xenon Headlights	WPT, WPS, WTS	8K556A	PC													408
High Efficiency Lighting	Audi	A4 Quattro	AWD	2.0L TFSI	S8	Xenon Headlights, LED Tail lights	WTS, WPT, WPS	8K256A	PC													2,777
High Efficiency Lighting	Audi	A5 Cabriolet Quattro	AWD	2.0L TFSI	S8	Xenon Headlights, LED Tail lights	WPT, WPS	8F756A	PC													470
High Efficiency Lighting	Audi	A5 Quattro	AWD	2.0L TFSI	S8	Xenon Headlights, LED Tail lights	WPT, WPS	8T356A	PC													899
High Efficiency Lighting	Audi	TTRS Coupe	AWD	2.5L TFSI	M6	Xenon Headlights	All	8J35R9	PC													25
High Efficiency Lighting	Audi	S4	AWD	3.0L TFSI	M6	Xenon Headlights w/ LED Tail lights	All	8K2549	PC													171
High Efficiency Lighting	Audi	S4	AWD	3.0L TFSI	S7	Xenon Headlights w/ LED Tail lights	All	8K254Y	PC													460
High Efficiency Lighting	Audi	S5 Cabriolet	AWD	3.0L TFSI	S7	Xenon Headlights w/ LED Tail lights	All	8F754Y	PC													56
High Efficiency Lighting	Audi	A7 Quattro	AWD	3.0L TFSI	S8	Xenon Headlights, LED Tail lights	All	4GA51A	PC													1,838
High Efficiency Lighting	Audi	A6 Quattro	AWD	3.0L TFSI	S8	LED Headlights, LED Tail lights	PX2	4G251A	PC													578
High Efficiency Lighting	Audi	A7 Quattro	AWD	3.0L TFSI	S8	LED Headlights, LED Tail lights	PX2	4GA51A	PC													414
High Efficiency Lighting	Audi	A8	AWD	4.2L V8 FSI	S8	LED Headlights, LED Tail lights	PX2	4H25AA	PC													67
High Efficiency Lighting	Audi	A8 L	AWD	4.2L V8 FSI	S8	LED Headlights, LED Tail lights	PX2	4H85AA	PC													474
High Efficiency Lighting	Audi	A6 Quattro	AWD	3.0L TFSI	S8	Xenon Headlight, LED Tail lights	WPS	4G251A	PC													1,758
High Efficiency Lighting	Audi	S5	AWD	4.2L V8 FSI	M6	Xenon Headlights w/ LED Tail lights	All	8T3589	PC													17
High Efficiency Lighting	Audi	R8	AWD	4.2L V8 FSI	M6	Xenon Headlights	All	4236NT	PC													6
High Efficiency Lighting	Audi	R8 Spyder	AWD	4.2L V8 FSI	M6	Xenon Headlights	All	4295NB	PC													2
High Efficiency Lighting	Audi	S5	AWD	4.2L V8 FSI	S6	Xenon Headlights w/ LED Tail lights	All	8T358L	PC													47
High Efficiency Lighting	Audi	R8	AWD	4.2L V8 FSI	S6	Xenon Headlights	All	4236NB	PC													7
High Efficiency Lighting	Audi	R8 Spyder	AWD	4.2L V8 FSI	S6	Xenon Headlights	All	4295NT	PC													3
High Efficiency Lighting	Audi	A8	AWD	4.2L V8 FSI	S8	Xenon Headlights, LED Tail lights	All	4H25AA	PC													78
High Efficiency Lighting	Audi	A8 L	AWD	4.2L V8 FSI	S8	Xenon Headlights, LED Tail lights	All	4H85AA	PC													543
High Efficiency Lighting	Audi	R8	AWD	5.2L V10	M6	LED Headlights	All	42352T	PC													12
High Efficiency Lighting	Audi	R8 Spyder	AWD	5.2L V10	M6	LED Headlights	All	42952T	PC													6
High Efficiency Lighting	Audi	R8	AWD	5.2L V10	S6	LED Headlights	All	42352B	PC													22
High Efficiency Lighting	Audi	R8 Spyder	AWD	5.2L V10	S6	LED Headlights	All	42952B	PC													16
High Efficiency Lighting	Audi	A8 L	AWD	6.3L W12	S8	LED Headlights	All	4H85GA	PC													25
High Efficiency Lighting	Volkswagen	Beetle	FWD	2.0L TFSI	M6	Bi-Xenon Headlights, LED License Plate Illumination Light	Turbo w/Sunroof & Sound	5C13W2	PC													8
High Efficiency Lighting	Volkswagen	Beetle	FWD	2.0L TFSI	S6	Bi-Xenon Headlights, LED License Plate Illumination Light	Turbo w/Sunroof & Sound	5C13W3	PC													182
High Efficiency Lighting	Volkswagen	CC	FWD	2.0L TFSI	M6	Bi-Xenon Headlights, LED Tail light, LED License Plate Illumination Light	R-Line	3572F2	PC													8
High Efficiency Lighting	Volkswagen	CC	FWD	2.0L TFSI	M6	Bi-Xenon Headlights, LED Tail light, LED License Plate Illumination Light	R-Line	3574FD	PC													229
High Efficiency Lighting	Volkswagen	CC	FWD	2.0L TFSI	S6	Bi-Xenon Headlights, LED Tail light, LED License Plate Illumination Light	Sport	3575FD	PC													1,394
High Efficiency Lighting	Volkswagen	CC	FWD	2.0L TFSI	S6	Bi-Xenon Headlights, LED Tail light, LED License Plate Illumination Light	Lux	3576FD	PC													1,790
High Efficiency Lighting	Volkswagen	CC 4MOTION	FWD	3.6L VR6 FSI	S6	Bi-Xenon Headlights, LED Tail light, LED License Plate Illumination Light	Executive	3574UQ	PC													25
High Efficiency Lighting	Volkswagen	Eos	FWD	2.0L TFSI	S6	Xenon Headlights, LED License Plate Lights	Exec	1F86T3	PC													100
High Efficiency Lighting	Volkswagen	Golf 2 dr	FWD	2.0L TDI	M6	Bi-Xenon Headlights	TDI w/Tech Package	5K129L	PC													60
High Efficiency Lighting	Volkswagen	Golf 2 dr	FWD	2.0L TDI	S6	Bi-Xenon Headlights	TDI w/Tech Package	5K179M	PC													86
High Efficiency Lighting	Volkswagen	Golf R dr	AWD	2.0L TFSI	M6	Xenon Headlights	R, R w/Sunroof	5K1RX6	PC													218
High Efficiency Lighting	Volkswagen	GTI dr	FWD	2.0L TFSI	M6	Xenon Headlights	Autobahn, Conv Sunroof	5K13W2	PC													725
High Efficiency Lighting	Volkswagen	GTI dr	FWD	2.0L TFSI	S6	Xenon Headlights	Autobahn, Conv Sunroof	5K13W3	PC													725
High Efficiency Lighting	Volkswagen	Jetta [GLI]	FWD	2.0L TFSI	M6	LED Tail lights	Autobahn, Autobahn w/NAV	1629W2	PC													57
High Efficiency Lighting	Volkswagen	Jetta [GLI]	FWD	2.0L TFSI	S6	LED Tail lights	Autobahn, Autobahn w/NAV	1629W3	PC													63
High Efficiency Lighting	Volkswagen	Tiguan	FWD	2.0L TFSI	S6	Bi-Xenon Headlights	SEL	5N27VI	PC													131
																						18,711

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Section 2--VWGoA MY 2012 High Efficiency Lighting - LDT

Off Cycle Technology	Make	Drivetrain	Engine	Transmission	Technologies	Trim Level / Option Code	Factory Model Code	GHG Class	Low Beam	High Beam	Parking/ Position	Side Marker Front	Side Marker Rear	Turn Signal Rear	Tail	Turn Signal Rear	License Plate	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
High efficiency Lighting	Q5	AWD	2.0L TFSI	S8	Xenon Headlight, LED Taillights	WPS	8RB5EL												[]	2,844
High efficiency Lighting	Q7	AWD	3.0L TDI	S8	Xenon Headlight, LED Turn Signals	WPS	4LB5RA												[]	183
High efficiency Lighting	Q7	AWD	3.0L TFSI	S8	Xenon Headlight, LED Turn Signals	WPS	4LB5KA												[]	361
High efficiency Lighting	Tiguan 4MOTION	AWD	2.0L TFSI	S6	Bi-Xenon Headlights	SEL	5N27V3												[]	224
High efficiency Lighting	Touareg	AWD	3.0L TDI	S8	Bi-Xenon Headlights	Lux, Exec	7P52J3												[]	497
High efficiency Lighting	Touareg	AWD	3.6L VR6 FSI	S8	Bi-Xenon Headlights	Lux, Exec	7P5203												[]	415
High efficiency Lighting	Touareg Hybrid	AWD	3.0L V6 (FSI Hybrid)	S8	Bi-Xenon Headlights, LED Tail lights, LED License Plate Illumination Light	Hybrid	7P5293												[]	48
																			[]	4,572

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Section 2--VWGoA MY 2012 Active Aerodynamics Improvements

Off Cycle Technology	Make	Impacted Carlines (VW)	Engine	Technologies	Drivetrain	Transmission	Trim Level / Option Code	Factory Model Code	GHG Class	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
Active Aerodynamics	Audi	A8	4.2L	Active Air Suspension	AWD	S8	All	4H25AA	PC	0.2	[]	22
Active Aerodynamics	Audi	A8L	4.2L	Active Air Suspension	AWD	S8	All	4H85AA	PC	0.2	[]	148
												170

Off Cycle Technology	Make	Impacted Carlines (VW)	Engine	Technologies	Drivetrain	Transmission	Trim Level / Option Code	Factory Model Code	GHG Class	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
Active Aerodynamics	Audi	TT Coupe Quattro	2.0L TFSI	Active Spoiler	AWD	S6	All	8J86VL	PC	0.2	[]	49
Active Aerodynamics	Audi	TT Roadster Quattro	2.0L TFSI	Active Spoiler	AWD	S6	All	8J354L	PC	0.2	[]	22
Active Aerodynamics	Audi	TTRS	2.5L	Active Spoiler	AWD	M6	All	8J35R9	PC	0.2	[]	16
												87

Off Cycle Technology	Make	Impacted Carlines (VW)	Engine	Technologies	Drivetrain	Transmission	Trim Level / Option Code	Factory Model Code	GHG Class	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
Active Aerodynamics	Audi	A7	3.0L TFSI	Active Spoiler	AWD	S8	All	4GA51A	PC	0.2	[]	460
												460

Off Cycle Technology	Make	Impacted Carlines (VW)	Engine	Technologies	Drivetrain	Transmission	Trim Level / Option Code	Factory Model Code	GHG Class	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
Active Aerodynamics	Audi	Q7	3.0L TDI	Active Air Suspension	AWD	S8	1BK	4LB5RA	LT	0.3	[]	24
Active Aerodynamics	Audi	Q7	3.0L TFSI	Active Air Suspension	AWD	S8	1BK	4LB5XA	LT	0.3	[]	31
												55

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Section 2--VWGoA MY 2012 Engine Idle Start-Stop w/ Heater

Off Cycle Technology	Make	Impacted Carlines (VW)	Drivetrain	Engine	Transmission	Trim Level / Option Code	Factory Model Code	GHG Class	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
Engine Idle Start/Stop w/ Heater	Volkswagen	Touareg Hybrid	AWD	3.0L TSI	S8	All	7P5293	LT	4.4	[]	302
											302

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Section 2--VWGoA MY 2012 Active Transmission Warm-up

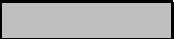
Off Cycle Technology	Make	Impacted Carlines	Drive	Engine	Trans Type	Transmission	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
Active Transmission Warm-up	Audi	A3	AWD	R4 2.0 4V TFSI	S6	DQ-250-6F	1.5	[]	623
Active Transmission Warm-up	Audi	A3	AWD	R4 2.0 4V TFSI	M6	DQ-250-6F	1.5	[]	188
Active Transmission Warm-up	Audi	A3	AWD	R4 2.0 4V TDI CR	S6	DQ-250-6F	1.5	[]	1,132
Active Transmission Warm-up	Audi	A3 quattro	AWD	R4 2.0 4V TFSI	S6	DQ-250-6A	1.5	[]	185
Active Transmission Warm-up	Audi	TT Coupe	AWD	R4 2.0 4V TFSI	S6	DQ-250-6A	1.5	[]	369
Active Transmission Warm-up	Audi	TT Roadster	AWD	R4 2.0 4V TFSI	S6	DQ-250-6A	1.5	[]	169
Active Transmission Warm-up	Audi	A6 quattro	AWD	3.0L TFSI	S8q	AL551-8Q	1.5	[]	4,731
Active Transmission Warm-up	Audi	A7 quattro	AWD	3.0L TFSI	S8q	AL551-8Q	1.5	[]	3,447
Active Transmission Warm-up	Audi	A8L	AWD	6.3L W12	S8q	AL551-8Q	1.5	[]	54
Active Transmission Warm-up	Volkswagen	Beetle	FWD	2.5L I5	S6	AQ-250-A6F	1.5	[]	198
Active Transmission Warm-up	Volkswagen	Beetle	FWD	2.5L I5	S6	AQ-250-A6F	1.5	[]	156
Active Transmission Warm-up	Volkswagen	Beetle	FWD	R4 2.0 4V TFSI	M6	DQ-250-6F	1.5	[]	641
Active Transmission Warm-up	Volkswagen	Beetle	FWD	R4 2.0 4V TFSI	S6	DQ-250-6F	1.5	[]	2,144
Active Transmission Warm-up	Volkswagen	Beetle Convertible	FWD	2.5L I5	S6	AQ-250-A6F	1.5	[]	14
Active Transmission Warm-up	Volkswagen	Beetle Convertible	FWD	R4 2.0 4V TFSI	S6	DQ-250-6F	1.5	[]	8
Active Transmission Warm-up	Volkswagen	CC	FWD	R4 2.0 4V TFSI	M6	DQ-250-6F	1.5	[]	573
Active Transmission Warm-up	Volkswagen	CC	FWD	R4 2.0 4V TFSI	S6	DQ-250-6F	1.5	[]	7,960
Active Transmission Warm-up	Volkswagen	EOS Face Lift	FWD	R4 2.0 4V TFSI	S6	DQ-250-6F	1.5	[]	3,256
Active Transmission Warm-up	Volkswagen	Golf	FWD	2.5L I5	S6	AQ-250-A6F	1.5	[]	20
Active Transmission Warm-up	Volkswagen	Golf TDI	FWD	R4 2.0 4V TDI CR	S6	DQ-250-6F	1.5	[]	987
Active Transmission Warm-up	Volkswagen	Golf TDI	FWD	R4 2.0 4V TDI CR	M6	DQ-250-6F	1.5	[]	954
Active Transmission Warm-up	Volkswagen	GTI	FWD	R4 2.0 4V TFSI	S6	DQ-250-6F	1.5	[]	2,719
Active Transmission Warm-up	Volkswagen	GTI	FWD	R4 2.0 4V TFSI	M6	DQ-250-6F	1.5	[]	2,719
Active Transmission Warm-up	Volkswagen	Jetta GLI	FWD	R4 2.0 4V TFSI	M6	DQ-250-6F	1.5	[]	1,213
Active Transmission Warm-up	Volkswagen	Jetta GLI	FWD	R4 2.0 4V TFSI	S6	DQ250-6F	1.5	[]	1,341
Active Transmission Warm-up	Volkswagen	Jetta Sportwagon	FWD	2.5L I5	S6	AQ-250-A6F	1.5	[]	38
Active Transmission Warm-up	Volkswagen	Jetta Sportwagon TDI	FWD	R4 2.0 4V TDI CR	M6	DQ-250-6F	1.5	[]	1,099
Active Transmission Warm-up	Volkswagen	Jetta Sportwagon TDI	FWD	R4 2.0 4V TDI CR	S6	DQ-250-6F	1.5	[]	4,466
Active Transmission Warm-up	Volkswagen	Jetta TDI	FWD	R4 2.0 4V TDI CR	M6	DQ-250-6F	1.5	[]	2,654
Active Transmission Warm-up	Volkswagen	Jetta TDI	FWD	R4 2.0 4V TDI CR	S6	DQ-250-6F	1.5	[]	6,877
Active Transmission Warm-up	Volkswagen	Passat	FWD	2.5L I5	S6	AQ-250-A6F	1.5	[]	1,071
Active Transmission Warm-up	Volkswagen	Passat	FWD	2.5L I5	S6	AQ-250-A6F	1.5	[]	1,967
Active Transmission Warm-up	Volkswagen	Passat	FWD	2.5L I5	S6	AQ-250-A6F	1.5	[]	1,656
Active Transmission Warm-up	Volkswagen	Passat 4Motion	FWD	VR6 3.6 4V FSI	S6	DQ-250-6F	1.5	[]	1,307
Active Transmission Warm-up	Volkswagen	Passat TDI	FWD	R4 2.0 4V TDI CR	M6	DQ-250-6F	1.5	[]	385
Active Transmission Warm-up	Volkswagen	Passat TDI	FWD	R4 2.0 4V TDI CR	S6	DQ-250-6F	1.5	[]	5,040
									62,361

Off Cycle Technology	Make	Impacted Carlines	Drive	Engine	Trans Type	Transmission	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
Active Transmission Warm-up	Audi	Q7	AWD	3.0L TDI	S8q	AL1000-8A	3.2	[]	2,469
									2,469




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Section 2--VWGoA MY 2012 Active Engine Warm-Up


Off Cycle Attribute	Make	Impacted Carlines	GHG Class	Trans Type	Drive Train	Engine	Technology	Trim/Option Code	Total Credit Value gpm	Confidential Sales	Off-Cycle Credit in Mg
Active Engine Warm-Up	Audi	A8	PC	S8q	AWD	4.2 L V8FSI	standing water	All	1.5 [		165
Active Engine Warm-Up	Audi	A8L	PC	S8q	AWD	4.2 L V8FSI	standing water	All	1.5 [1,111
											1,276

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Section 2--VWGoA MY 2012 Thermal Control Technologies-Ventilated Seats

Off Cycle Technology	Subsystem	Make	Impacted Carlines	Drive	Engine	Transmission	GHG Class	Trim Level / Option Code	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
Thermal Control	Ventilated Seats	Audi	A5 Cabriolet	AWD	2.0L TFSI	S6	PC	PCC	1.0	[]	142
Thermal Control	Ventilated Seats	Audi	S5 Cabriolet	AWD	2.0L TFSI	S6	PC	PCC	1.0	[]	25
										[]	167

Off Cycle Technology	Subsystem	Make	Impacted Carlines	Drive	Engine	Transmission	GHG Class	Trim Level / Option Code	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
Thermal Control	Ventilated Seats	Audi	Q5 3.2L	AWD	3.2L TFSI	S6	LT	PPD	1.0	[]	183
Thermal Control	Ventilated Seats	Audi	Q7 3.0L	AWD	3.0L TFSI	S6	LT	S-Line	1.3	[]	619
Thermal Control	Ventilated Seats	Audi	Q7 TDI	AWD	3.0L TDI	S6	LT	WPT	1.3	[]	394
										[]	1,196

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Section 2--VWGoA MY 2012 Thermal Control Technologies- Solar Reflective Paint - PC

Off Cycle Technology	Subsystem	Make (MY 2012)	Impacted Carlines	Engine	Transmission	GHG Class	Exterior Color	Exterior Paint Code	TSR Value(%)	Total Credit Value gpm	Confidential Sales	Off-Cycle Credit (Mg)
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.0L MPI	M6	PC	Reflex Silver	8E8E		0.4	[]	84
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.0L MPI	S6	PC	Reflex Silver	8E8E		0.4	[]	253
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.5L	M6	PC	Reflex Silver	8E8E		0.4	[]	99
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.5L	S6	PC	Reflex Silver	8E8E		0.4	[]	754
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.0L TDI	M6	PC	Reflex Silver	8E8E		0.4	[]	91
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.0L TDI	S6	PC	Reflex Silver	8E8E		0.4	[]	232
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.0L MPI	M6	PC	Candy White	B4B4		0.4	[]	92
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.0L MPI	S6	PC	Candy White	B4B4		0.4	[]	290
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.5L	M6	PC	Candy White	B4B4		0.4	[]	107
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.5L	S6	PC	Candy White	B4B4		0.4	[]	1,237
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.0L TDI	M6	PC	Candy White	B4B4		0.4	[]	138
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.0L TDI	S6	PC	Candy White	B4B4		0.4	[]	342
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta GLI	2.0T TFSI	S6	PC	Candy White	B4B4		0.4	[]	68
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta GLI	2.0T TFSI	M6	PC	Candy White	B4B4		0.4	[]	62
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.0L MPI	M6	PC	White Gold	7B7B		0.4	[]	10
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.0L MPI	S6	PC	White Gold	7B7B		0.4	[]	40
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.5L	M6	PC	White Gold	7B7B		0.4	[]	14
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.5L	S6	PC	White Gold	7B7B		0.4	[]	161
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.0L TDI	M6	PC	White Gold	7B7B		0.4	[]	20
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	2.0L TDI	S6	PC	White Gold	7B7B		0.4	[]	82
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta Sportswagon	2.0L TDI	M6	PC	Reflex Silver	8E8E		0.4	[]	55
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta Sportswagon	2.0L TDI	S6	PC	Reflex Silver	8E8E		0.4	[]	160
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta Sportswagon	2.0L TDI	M6	PC	Candy White	B4B4		0.4	[]	49
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta Sportswagon	2.0L TDI	S6	PC	Candy White	B4B4		0.4	[]	235
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta Sportswagon	2.0L TDI	M6	PC	White Gold	7B7B		0.4	[]	14
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta Sportswagon	2.0L TDI	S6	PC	White Gold	7B7B		0.4	[]	50
Thermal Control	Solar Reflective Paint	Volkswagen	Golf	2.5L	M6	PC	Reflex Silver	8E8E		0.4	[]	24
Thermal Control	Solar Reflective Paint	Volkswagen	Golf	2.5L	S6	PC	Reflex Silver	8E8E		0.4	[]	99
Thermal Control	Solar Reflective Paint	Volkswagen	Golf	2.5L	M6	PC	Candy White	B4B4		0.4	[]	31

Section 2--VWGoA MY 2012 Thermal Control Technologies- Solar Reflective Paint - PC

Off Cycle Technology	Subsystem	Make (MY 2012)	Impacted Carlines	Engine	Transmission	GHG Class	Exterior Color	Exterior Paint Code	TSR Value(%)	Total Credit Value gpm	Confidential Sales	Off-Cycle Credit (Mg)
Thermal Control	Solar Reflective Paint	Volkswagen	Golf	2.5L	S6	PC	Candy White	B4B4		0.4	[]	119
Thermal Control	Solar Reflective Paint	Volkswagen	Golf	2.0L TDI	M6	PC	Reflex Silver	8E8E		0.4	[]	58
Thermal Control	Solar Reflective Paint	Volkswagen	Golf	2.0L TDI	S6	PC	Reflex Silver	8E8E		0.4	[]	58
Thermal Control	Solar Reflective Paint	Volkswagen	Golf	2.0L TDI	M6	PC	Candy White	B4B4		0.4	[]	71
Thermal Control	Solar Reflective Paint	Volkswagen	Golf	2.0L TDI	S6	PC	Candy White	B4B4		0.4	[]	87
Thermal Control	Solar Reflective Paint	Volkswagen	GTI	2.0T TFSI	M6	PC	Candy White	B4B4		0.4	[]	140
Thermal Control	Solar Reflective Paint	Volkswagen	GTI	2.0T TFSI	S6	PC	Candy White	B4B4		0.4	[]	161
Thermal Control	Solar Reflective Paint	Volkswagen	Golf R	2.0 TFSI	M6	PC	Candy White	B4B4		0.4	[]	42
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	2.5L	M6	PC	Reflex Silver	8E8E		0.4	[]	17
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	2.5L	S6	PC	Reflex Silver	8E8E		0.4	[]	182
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	2.5L	M6	PC	Candy White	B4B4		0.4	[]	20
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	2.5L	S6	PC	Candy White	B4B4		0.4	[]	210
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	2.0T TFSI	M6	PC	Reflex Silver	8E8E		0.4	[]	18
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	2.0T TFSI	S6	PC	Reflex Silver	8E8E		0.4	[]	48
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	2.0T TFSI	M6	PC	Candy White	B4B4		0.4	[]	32
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	2.0T TFSI	S6	PC	Candy White	B4B4		0.4	[]	124
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	2.0L TDI	M6	PC	Reflex Silver	8E8E		0.4	[]	9
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	2.0L TDI	S6	PC	Reflex Silver	8E8E		0.4	[]	111
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	2.0L TDI	M6	PC	Candy White	B4B4		0.4	[]	11
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	2.0L TDI	S6	PC	Candy White	B4B4		0.4	[]	217
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	2.5L	M6	PC	Reflex Silver	8E8E		0.4	[]	24
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	2.5L	S6	PC	Reflex Silver	8E8E		0.4	[]	621
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	2.5L	S6	PC	Candy White	B4B4		0.4	[]	37
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	2.5L	M6	PC	Candy White	B4B4		0.4	[]	947
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	3.6L VR6	S6	PC	Reflex Silver	8E8E		0.4	[]	39
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	3.6L VR6	M6	PC	Candy White	B4B4		0.4	[]	63
Thermal Control	Solar Reflective Paint	Volkswagen	EOS	2.0T TFSI	S6	PC	Reflex Silver	8E8E		0.4	[]	78
Thermal Control	Solar Reflective Paint	Volkswagen	EOS	2.0T TFSI	S6	PC	Candy White	B4B4		0.4	[]	154
Thermal Control	Solar Reflective Paint	Volkswagen	EOS	2.0T TFSI	S6	PC	White Gold	7B7B		0.4	[]	56

Section 2--VWGoA MY 2012 Thermal Control Technologies- Solar Reflective Paint - PC

Off Cycle Technology	Subsystem	Make (MY 2012)	Impacted Carlines	Engine	Transmission	GHG Class	Exterior Color	Exterior Paint Code	TSR Value(%)	Total Credit Value gpm	Confidential Sales	Off-Cycle Credit (Mg)
Thermal Control	Solar Reflective Paint	Volkswagen	CC	2.0T TFSI	M6	PC	Reflex Silver	8E8E		0.4	[]	13
Thermal Control	Solar Reflective Paint	Volkswagen	CC	2.0T TFSI	S6	PC	Reflex Silver	8E8E		0.4	[]	222
Thermal Control	Solar Reflective Paint	Volkswagen	CC	2.0T TFSI	M6	PC	Candy White	B4B4		0.4	[]	22
Thermal Control	Solar Reflective Paint	Volkswagen	CC	2.0T TFSI	S6	PC	Candy White	B4B4		0.4	[]	405
Thermal Control	Solar Reflective Paint	Volkswagen	CC	2.0T TFSI	M6	PC	White Gold	7B7B		0.4	[]	1
Thermal Control	Solar Reflective Paint	Volkswagen	CC	2.0T TFSI	S6	PC	White Gold	7B7B		0.4	[]	96
Thermal Control	Solar Reflective Paint	Volkswagen	CC	3.6L VR6	S6	PC	Reflex Silver	8E8E		0.4	[]	1
Thermal Control	Solar Reflective Paint	Volkswagen	CC	3.6L VR6	S6	PC	Candy White	B4B4		0.4	[]	3
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan	2.0T TFSI	M6	PC	Reflex Silver	8E8E		0.4	[]	5
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan	2.0T TFSI	S6	PC	Reflex Silver	8E8E		0.4	[]	161
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan	2.0T TFSI	M6	PC	Candy White	B4B4		0.4	[]	13
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan	2.0T TFSI	S6	PC	Candy White	B4B4		0.4	[]	274
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan	2.0T TFSI	M6	PC	White Gold	7B7B		0.4	[]	3
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan	2.0T TFSI	S6	PC	White Gold	7B7B		0.4	[]	141
Thermal Control	Solar Reflective Paint	Audi	A3	2.0L TDI	S6	PC	Ibis White	T9T9		0.4	[]	60
Thermal Control	Solar Reflective Paint	Audi	A3	2.0L TFSI	M6	PC	Ibis White	T9T9		0.4	[]	11
Thermal Control	Solar Reflective Paint	Audi	A5 Quattro	2.0L TFSI	M6	PC	Ibis White	T9T9		0.4	[]	67
Thermal Control	Solar Reflective Paint	Audi	A6	2.0L TFSI	S8	PC	Ibis White	T9T9		0.4	[]	21
Thermal Control	Solar Reflective Paint	Audi	A3	2.0L TFSI	S6	PC	Ibis White	T9T9		0.4	[]	38
Thermal Control	Solar Reflective Paint	Audi	A3 Quattro	2.0L TFSI	S6	PC	Ibis White	T9T9		0.4	[]	9
Thermal Control	Solar Reflective Paint	Audi	A4 Avant quattro	2.0L TFSI	S8	PC	Ibis White	T9T9		0.4	[]	24
Thermal Control	Solar Reflective Paint	Audi	A5 Quattro	2.0L TFSI	S8	PC	Ibis White	T9T9		0.4	[]	6
Thermal Control	Solar Reflective Paint	Audi	S4	3.0L TFSI	M6	PC	Ibis White	T9T9		0.4	[]	7
Thermal Control	Solar Reflective Paint	Audi	S4	3.0L TFSI	S7	PC	Ibis White	T9T9		0.4	[]	31
Thermal Control	Solar Reflective Paint	Audi	A7 Quattro	3.0L TFSI	S8	PC	Ibis White	T9T9		0.4	[]	114
Thermal Control	Solar Reflective Paint	Audi	A6 Quattro	3.0LTFSI	S8	PC	Ibis White	T9T9		0.4	[]	119
Thermal Control	Solar Reflective Paint	Audi	R8	4.2L V8 FSI	M6	PC	Ibis White	T9T9		0.4	[]	1
Thermal Control	Solar Reflective Paint	Audi	R8	4.2L V8 FSI	S6	PC	Ibis White	T9T9		0.4	[]	2
Thermal Control	Solar Reflective Paint	Audi	R8	5.2L V10	M6	PC	Ibis White	T9T9		0.4	[]	4


Section 2--VWGoA MY 2012 Thermal Control Technologies- Solar Reflective Paint - PC

Off Cycle Technology	Subsystem	Make (MY 2012)	Impacted Carlines	Engine	Transmission	GHG Class	Exterior Color	Exterior Paint Code	TSR Value(%)	Total Credit Value gpm	Confidential Sales	Off-Cycle Credit (Mg)
Thermal Control	Solar Reflective Paint	Audi	R8	5.2L V10	S6	PC	Ibis White	T9T9		0.4	[]	6
Thermal Control	Solar Reflective Paint	Audi	A5 Quattro	2.0L TFSI	M6	PC	Glacier White Metallic	2Y2Y		0.4	[]	2
Thermal Control	Solar Reflective Paint	Audi	A6	2.0L TFSI	M6	PC	Glacier White Metallic	2Y2Y		0.4	[]	12
Thermal Control	Solar Reflective Paint	Audi	A4 Avant quattro	2.0L TFSI	S8	PC	Glacier White Metallic	2Y2Y		0.4	[]	16
Thermal Control	Solar Reflective Paint	Audi	A5 Quattro	2.0L TFSI	S8	PC	Glacier White Metallic	2Y2Y		0.4	[]	30
Thermal Control	Solar Reflective Paint	Audi	S4	3.0L TFSI	M6	PC	Glacier White Metallic	2Y2Y		0.4	[]	6
Thermal Control	Solar Reflective Paint	Audi	S4	3.0L TFSI	S7	PC	Glacier White Metallic	2Y2Y		0.4	[]	16
Thermal Control	Solar Reflective Paint	Audi	A7 Quattro	3.0L TFSI	S8	PC	Glacier White Metallic	2Y2Y		0.4	[]	34
Thermal Control	Solar Reflective Paint	Audi	A6 Quattro	3.0LTFSI	S8	PC	Glacier White Metallic	2Y2Y		0.4	[]	63
											[]	10,706

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Section 2--VWGoA MY 2012 Thermal Control Technologies- Solar Reflective Paint - LDT

Off Cycle Technology	Subsystem	Make	Impacted Carlines	Drive	Engine	Trans	GHG Class	Exterior Color	Exterior Paint Code	TSR Value(%)	Total Credit Value gpm	Confidential Sales	Off-Cycle Credit (Mg)
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan 4MO	AWD	2.0L	S6	LT	Reflex Silver	8E8E		0.5	[]	152
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan 4MO	AWD	2.0L	S6	LT	White Gold	7B7B		0.5	[]	104
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan 4MO	AWD	2.0L	S6	LT	Candy White	B4B4		0.5	[]	234
Thermal Control	Solar Reflective Paint	Audi	Q5	AWD	3.2L	S6	LT	Ibis White	T9T9		0.5	[]	200
Thermal Control	Solar Reflective Paint	Audi	Q5	AWD	2.0L	S6	LT	Glacier White Metallic	2Y2Y		0.5	[]	165
Thermal Control	Solar Reflective Paint	Audi	Q5	AWD	3.2L	S6	LT	Glacier White Metallic	2Y2Y		0.5	[]	106
Thermal Control	Solar Reflective Paint	Audi	Q5	AWD	2.0L	S6	LT	Ibis White	T9T9		0.5	[]	404
Thermal Control	Solar Reflective Paint	Audi	Q7 TDI	AWD	3.0I TDI	S6	LT	Glacier White Metallic	2Y2Y		0.5	[]	39
Thermal Control	Solar Reflective Paint	Audi	Q7 TDI	AWD	3.0I TDI	S6	LT	Ibis White	T9T9		0.5	[]	28
Thermal Control	Solar Reflective Paint	Audi	Q7	AWD	3.0L	S6	LT	Ibis White	T9T9		0.5	[]	43
Thermal Control	Solar Reflective Paint	Audi	Q7	AWD	3.0L	S6	LT	Glacier White Metallic	2Y2Y		0.5	[]	59
												[]	1,534

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Section 2--VWGoA MY 2012 Thermal Control Technologies-Thermal Glazing - PC

Off Cycle Technology	Subsystem	Make (MY 2012)	Impacted Carlines	Drive	Engine	Trans	SunRoof	GHG Class	Total Credit Value gpm	Confidential Sales	Off-Cycle Credit (Mg)
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Beetle	FWD	2.0L	M6	Yes	PC	0.10	[]	39
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Beetle	FWD	2.0L	S6	Yes	PC	0.10	[]	42
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Beetle	FWD	2.0L	M6	Yes	PC	0.10	[]	3
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Beetle	FWD	2.0L	S6	Yes	PC	0.10	[]	54
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Golf TDI	FWD	2.0L TDI	M6	Yes	PC	0.10	[]	23
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Golf TDI	FWD	2.0L TDI	S6	Yes	PC	0.10	[]	33
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Golf	FWD	2.5L	M6	Yes	PC	0.10	[]	9
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Golf	FWD	2.5L	S6	Yes	PC	0.10	[]	8
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Jetta	FWD	2.0L	M6	Yes	PC	0.20	[]	28
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Jetta	FWD	2.0L	S6	Yes	PC	0.20	[]	122
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Jetta GLI	FWD	2.0L	M6	Yes	PC	0.20	[]	82
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Jetta GLI	FWD	2.0L	S6	Yes	PC	0.20	[]	126
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Jetta	FWD	2.5L	M6	Yes	PC	0.20	[]	107
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Jetta	FWD	2.5L	S6	Yes	PC	0.20	[]	1,261
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Passat TDI	FWD	2.0L TDI	S6	Yes	PC	0.30	[]	183
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Passat	FWD	2.5L	S6	Yes	PC	0.30	[]	1,362
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Passat 4Motion	AWD	3.6l	M6	Yes	PC	0.30	[]	134
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Tiguan	FWD	2.0L	S6	Yes	PC	0.10	[]	214
Thermal Control	Thermal Glazing - Sunroof	Audi	A3	AWD	2.0L TDI	S6	Yes	PC	0.70	[]	528
Thermal Control	Thermal Glazing - Sunroof	Audi	A3	AWD	2.0L TFSI	M6	Yes	PC	0.70	[]	88
Thermal Control	Thermal Glazing - Sunroof	Audi	A3	AWD	2.0L TFSI	S6	Yes	PC	0.70	[]	358
Thermal Control	Thermal Glazing - Sunroof	Audi	A3	FWD	2.0L	S6	Yes	PC	0.70	[]	87
Thermal Control	Thermal Glazing - Sunroof	Audi	A4 quattro	AWD	2.0L	M6	Yes	PC	0.33	[]	136
Thermal Control	Thermal Glazing - Sunroof	Audi	A4 quattro	AWD	2.0L	S6	Yes	PC	0.33	[]	1,470
Thermal Control	Thermal Glazing - Sunroof	Audi	A4 Avant	AWD	2.0L	S6	Yes	PC	0.18	[]	92
Thermal Control	Thermal Glazing - Sunroof	Audi	A5	AWD	2.0L	M6	Yes	PC	0.10	[]	16
Thermal Control	Thermal Glazing - Sunroof	Audi	A5	AWD	2.0L	S6	Yes	PC	0.10	[]	112
Thermal Control	Thermal Glazing - Sunroof	Audi	A6	AWD	2.0L	S6	Yes	PC	0.56	[]	243
Thermal Control	Thermal Glazing - Sunroof	Audi	A6	AWD	3.0L	S6	Yes	PC	0.56	[]	1,766
Thermal Control	Thermal Glazing - Sunroof	Audi	A7	AWD	3.0L	S6	Yes	PC	0.10	[]	228
Thermal Control	Thermal Glazing - Sunroof	Audi	A8	AWD	4.2L	S6	Yes	PC	0.50	[]	55
											9,009

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Section 2--VWGoA MY 2012 Thermal Control Technologies- Thermal Glazing - LDT

Subsystem	Make (MY 2012)	Impacted Carlines	Drive	Engine	Trans	Trim/Option Code	Glass Roof	GHG Class	Total Credit Value gpm	Confidential Sales	Off-Cycle Credit (Mg)
Thermal Glazing - Sunroof	Volkswagen	Tiguan 4Motion	AWD	2.0L TFSI	S6	S 4Motion	No	LT	0.10	[]	37
Thermal Glazing - Sunroof	Volkswagen	Tiguan 4Motion	AWD	2.0L TFSI	S6	S 4Motion, SE 4Motion	Yes	LT	0.60	[]	731
Thermal Glazing - Sunroof	Volkswagen	Tiguan 4Motion	AWD	2.0L TFSI	S6	SE 4Motion	No	LT	0.10	[]	58
Thermal Glazing - Sunroof	Volkswagen	Tiguan 4Motion	AWD	2.0L	S6	SEL 4Motion	Yes	LT	0.60	[]	269
Thermal Glazing - Sunroof	Volkswagen	Touareg	AWD	3.6L VR6	S8	7P5203	Yes	LT	0.60	[]	53
Thermal Glazing - Sunroof	Volkswagen	Touareg	AWD	3.6L VR6	S8	7P5103	Yes	LT	0.90	[]	148
Thermal Glazing - Sunroof	Volkswagen	Touareg	AWD	3.6L VR6	S8	7P5303	Yes	LT	0.70	[]	153
Thermal Glazing - Sunroof	Volkswagen	Touareg	AWD	3.6L VR6	S8	7P5403	Yes	LT	1.00	[]	91
Thermal Glazing - Sunroof	Volkswagen	Touareg	AWD	3.0L TDI	S8	7P52K3	Yes	LT	0.60	[]	36
Thermal Glazing - Sunroof	Volkswagen	Touareg	AWD	3.0L TDI	S8	7P51K3	Yes	LT	9.00	[]	884
Thermal Glazing - Sunroof	Volkswagen	Touareg	AWD	3.0L TDI	S8	7P53K3	Yes	LT	0.70	[]	234
Thermal Glazing - Sunroof	Volkswagen	Touareg	AWD	3.0L TDI	S8	7P54K3	Yes	LT	1.00	[]	151
Thermal Glazing - Sunroof	Audi	Q5	AWD	2.0L TFSI	S8	WPT	Yes	LT	0.90	[]	3,656
Thermal Glazing - Sunroof	Audi	Q5	AWD	3.2L	S8	All Trims	Yes	LT	0.90	[]	2,500
Thermal Glazing - Sunroof	Audi	Q7	AWD	3.0L TDI	S8	All Trims	Yes	lt	0.6	[]	274
Thermal Glazing - Sunroof	Audi	Q7	AWD	3.0L TFSI	S8	All Trims	Yes	lt	0.6	[]	433
											9,708


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Section 3--VWGoA Total MY 2013 Off- Cycle Credit Summary

MY2013 VWGoA Off-Cycle Summary (PC + LT)

Passenger Car			
Technology		Sales	Credit
High Efficiency Lighting	[		25,856
Active Aerodynamics	[		610
Engine Idle w Stop/Start	[		2,961
Active Trans Warm-up	[		117,122
Active Engine Warm-up	[		5,056
Ventilated Seats	[		2,326
Solar Reflective Paint	[		12,136
Thermal Glazing	[		9,978
			176,045

Light Duty Truck			
Technology		Sales	Credit
High Efficiency Lighting	[		6,272
Active Aerodynamics	[		63
Engine Idle w Stop/Start	[		1,047
Active Trans Warm-up	[		2,290
Active Engine Warm-Up	[		1,431
Ventilated Seats	[2,476
Solar Reflective Paint	[1,164
Thermal Glazing	[9,854
			24,597

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Section 3--VWGoA MY 2013 High-Efficiency Lighting - PC

Off Cycle Technology	Make	Impacted Carlines (VW)	Drivetrain	Engine	Transmission	Technologies	Trim Level / Option Code	Factory Model Code	GHG Class	Low Beam	High Beam	Parking/Position	Turn Signal Front	Side Marker Front	Side Marker Rear	Tail	Turn Signal Rear	License Plate	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
High Efficiency Lighting	Audi	A3	FWD	2.0L TDI	S6	Xenon Headlights	All	8PA5PX	PC												179
High Efficiency Lighting	Audi	A3	FWD	2.0L TFSI	M6	Xenon Headlights	All	8PA59X	PC												83
High Efficiency Lighting	Audi	A3	FWD	2.0L TFSI	S6	Xenon Headlights	All	8PA59C	PC												12
High Efficiency Lighting	Audi	A3 Quattro	AWD	2.0L TFSI	S6	Xenon Headlights	All	8PA59L	PC												89
High Efficiency Lighting	Audi	Allroad	AWD	2.0L TFSI	S8	Xenon Headlights	WPT, WPS, WTS	8K556A	PC												1,904
High Efficiency Lighting	Audi	A4	FWD	2.0L TFSI	M6	Xenon Headlights, LED Tail lights	WTS, WPT, WPS	8K2569	PC												571
High Efficiency Lighting	Audi	A4	FWD	2.0L TFSI	S8	Xenon Headlights, LED Tail lights	WTS, WPT, WPS	8K256A	PC												2,013
High Efficiency Lighting	Audi	A4 Quattro	AWD	2.0L TFSI	M6	Xenon Headlights, LED Tail lights	WTS, WPT, WPS	8K2569	PC												573
High Efficiency Lighting	Audi	A4 Quattro	AWD	2.0L TFSI	S8	Xenon Headlights, LED Tail lights	WTS, WPT, WPS	8K256A	PC												5,585
High Efficiency Lighting	Audi	A5 Cabriolet	FWD	2.0L TFSI	AV	Xenon Headlights, LED Tail lights	WPT, WPS	8F756H	PC												146
High Efficiency Lighting	Audi	A5 Cabriolet Quattro	AWD	2.0L TFSI	S8	Xenon Headlights, LED Tail lights	WPT, WPS	8F756A	PC												987
High Efficiency Lighting	Audi	A5 Quattro	AWD	2.0L TFSI	M6	Xenon Headlights, LED Tail lights	WPT, WPS	8T3569	PC												90
High Efficiency Lighting	Audi	A5 Quattro	AWD	2.0L TFSI	S8	Xenon Headlights, LED Tail lights	WPT, WPS	8T356A	PC												851
High Efficiency Lighting	Audi	A6	FWD	2.0L TFSI	M6	Xenon Headlights	WPS	4G25MA	PC												290
High Efficiency Lighting	Audi	A6 Quattro	AWD	2.0L TFSI	S8	Xenon Headlights	WPS	4G25MA	PC												1,054
High Efficiency Lighting	Audi	A6 Quattro	AWD	3.0L TFSI	S8	Xenon Headlight, LED Tail lights	WPS	4G251A	PC												803
High Efficiency Lighting	Audi	A6 Quattro	AWD	3.0L TFSI	S8	LED Headlights, LED Tail lights	PXT	4G251A	PC												840
High Efficiency Lighting	Audi	A7	AWD	3.0L TFSI	S8	LED Headlights, LED Tail lights	PXT	4GA51A	PC												654
High Efficiency Lighting	Audi	A7	AWD	3.0L TFSI	S8	Xenon Headlights, LED Tail lights	All	4GA51A	PC												1,035
High Efficiency Lighting	Audi	A8	AWD	3.0L TFSI	S8	Xenon Headlights, LED Tail lights	All	4H25AA	PC												139
High Efficiency Lighting	Audi	A8	AWD	4.0L TFSI	S8	Xenon Headlights, LED Tail lights	All	4H25AA	PC												49
High Efficiency Lighting	Audi	A8L	AWD	3.0L TFSI	S8	Xenon Headlights, LED Tail lights	All	4H85AA	PC												346
High Efficiency Lighting	Audi	A8L	AWD	4.0L TFSI	S8	Xenon Headlights, LED Tail lights	All	4H85AA	PC												225
High Efficiency Lighting	Audi	A8L	AWD	6.3L W12	S8	LED Headlights	All	4H85GA	PC												11
High Efficiency Lighting	Audi	S4	AWD	3.0L TFSI	M6	Xenon Headlights w/ LED Tail lights	All	8K2549	PC												766
High Efficiency Lighting	Audi	S4	AWD	3.0L TFSI	S7	Xenon Headlights w/ LED Tail lights	All	8K254Y	PC												224
High Efficiency Lighting	Audi	S5	AWD	3.0L TFSI	M6	Xenon Headlights w/ LED Tail lights	All	8T3549	PC												115
High Efficiency Lighting	Audi	S5	AWD	3.0L TFSI	S7	Xenon Headlights w/ LED Tail lights	All	8T354Y	PC												422
High Efficiency Lighting	Audi	S5 Cabriolet	AWD	3.0L TFSI	S7	Xenon Headlights w/ LED Tail lights	All	8F754Y	PC												250
High Efficiency Lighting	Volkswagen	Beetle	FWD	2.0L TFSI	M6	Bi-Xenon Headlights, LED License Plate Illumination Light	Turbo w/Sunroof & Sound	5C13W2	PC												54
High Efficiency Lighting	Volkswagen	Beetle	FWD	2.0L TFSI	S6	Bi-Xenon Headlights, LED License Plate Illumination Light	Turbo w/Sunroof & Sound	5C13W3	PC												287
High Efficiency Lighting	Volkswagen	CC	FWD	2.0L TFSI	S6	Bi-Xenon Headlights, LED Tail light, LED License Plate Illumination Light	R-Line	3584L2	PC												322
High Efficiency Lighting	Volkswagen	CC	FWD	2.0L TFSI	M6	Bi-Xenon Headlights, LED Tail light, LED License Plate Illumination Light	R-Line	3584L2	PC												45
High Efficiency Lighting	Volkswagen	CC	FWD	2.0L TFSI	S6	Bi-Xenon Headlights, LED Tail light, LED License Plate Illumination Light	Lux Limited	3584L6	PC												3,350
High Efficiency Lighting	Volkswagen	CC	FWD	3.6L VR6 FSI	S6	Bi-Xenon Headlights, LED Tail light, LED License Plate Illumination Light	Lux Plus	3584U6	PC												85
High Efficiency Lighting	Volkswagen	CC 4MOTION	FWD	3.6L VR6 FSI	S6	Bi-Xenon Headlights, LED Tail light, LED License Plate Illumination Light	Executive	3584UQ	PC												126
High Efficiency Lighting	Volkswagen	Eos	FWD	2.0L TFSI	S6	Xenon Headlights, LED License Plate Lights	Exec	1F86T3	PC												46
High Efficiency Lighting	Volkswagen	Golf TDI	FWD	2.0L TDI	M6	Bi-Xenon Headlights	TDI w/Tech Package	5K179L	PC												37
High Efficiency Lighting	Volkswagen	Golf TDI	FWD	2.0L TDI	S6	Bi-Xenon Headlights	TDI w/Tech Package	5K179M	PC												114
High Efficiency Lighting	Volkswagen	Golf R	AWD	2.0L TFSI	M6	Xenon Headlights	R w/Sunroof & NAV	5K15X6	PC												215
High Efficiency Lighting	Volkswagen	GTI	FWD	2.0L TFSI	M6	Xenon Headlights	Conv Sunroof	5K13W2	PC												114
High Efficiency Lighting	Volkswagen	GTI	FWD	2.0L TFSI	S6	Xenon Headlights	Conv Sunroof	5K13W3	PC												198
High Efficiency Lighting	Volkswagen	Jetta [GU]	FWD	2.0L TFSI	M6	LED Tail lights	Autobahn	1629N2	PC												5
High Efficiency Lighting	Volkswagen	Jetta [GU]	FWD	2.0L TFSI	S6	Bi-Xenon Headlights, LED Tail lights, LED License Plate Light	Autobahn w/NAV	1629N3	PC												18
High Efficiency Lighting	Volkswagen	Jetta [GU]	FWD	2.0L TFSI	S6	Bi-Xenon Headlights, LED Tail lights, LED License Plate Light	Autobahn w/NAV	1629W3	PC												46
High Efficiency Lighting	Volkswagen	Tiguan	FWD	2.0L TFSI	S6	Bi-Xenon Headlights	SEL	5N2EV3	Pc												174
High Efficiency Lighting	Audi	TT Roadster	AWD	2.0L TFSI	S6	Xenon Headlights, LED Tail lights	All	8J354L	PC												29
High Efficiency Lighting	Audi	TTRS	AWD	2.5L T	M6	Xenon Headlights	All	8J35R9	PC												30
																					25,601

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Section 3--VWGoA MY 2013 High-Efficiency Lighting - LDT

Off Cycle Technology	Make	Impacted Carlines	Drivetrain	Engine	Transmission	Technologies	Trim Level / Option Code	GHG Class	Low Beam	High Beam	Parking/Position	Side Marker Front	Side Marker Rear	Turn Signal Rear	Tail	Turn Signal Rear	License Plate	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
High efficiency Lighting	Audi	Q5	AWD	2.0L TFSI	S8	Xenon Headlights, LED Tail lights	WPS	LT											[]	3,142
High efficiency Lighting	Audi	Q5	AWD	3.0L TFSI	S8	Xenon Headlight, LED Tail lights	All	LT											[]	1,007
High efficiency Lighting	Audi	Q5	AWD	2.0L TFSI Hybrid	S8	Xenon Headlight, LED Tail lights	WPS	LT											[]	151
High efficiency Lighting	Audi	Q7	AWD	3.0L TDI	S8	Xenon Headlight, LED Turn Signals	WPS	LT											[]	168
High efficiency Lighting	Audi	Q7	AWD	3.0L TFSI	S8	Xenon Headlight, LED Turn Signals	WPS	LT											[]	662
High efficiency Lighting	Volkswagen	Tiguan 4MOTION	AWD	2.0L TFSI	S6	Bi-Xenon Headlights	SEL	LT											[]	270
High efficiency Lighting	Volkswagen	Touareg	AWD	3.0L TDI	S8	Bi-Xenon Headlights	All	LT											[]	363
High efficiency Lighting	Volkswagen	Touareg	AWD	3.6L VR6 FSI	S8	Bi-Xenon Headlights	All	LT											[]	494
High efficiency Lighting	Volkswagen	Touareg Hybrid	AWD	3.0L V6 (FSI Hybrid)	S8	Bi-Xenon Headlights, LED Tail lights, LED License Plate Illumination Light	Hybrid	LT											[]	15
																			[]	6,272

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Section 3--VWGoA MY 2013 Active Aerodynamics

Off Cycle Technology	Make	Impacted Carlines (VW)	Drivetrain	Engine	Transmission	Technologies	Trim Level / Option Code	Factory Model Code	GHG Class	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
Active Aerodynamics	Audi	A8	AWD	3.0L	S8	Active Air Suspension	All	All	PC	0.2	[]	40
Active Aerodynamics	Audi	A8	AWD	4.0L	S8	Active Air Suspension	All	All	PC	0.2	[]	14
Active Aerodynamics	Audi	A8L	AWD	3.0L	S8	Active Air Suspension	All	All	PC	0.2	[]	99
Active Aerodynamics	Audi	A8L	AWD	4.0L	S8	Active Air Suspension	All	All	PC	0.2	[]	64
Active Aerodynamics	Audi	A8L	AWD	6.3L	S8	Active Air Suspension	All	All	PC	0.2	[]	3
												220

Section 3--VWGoA MY 2013 Engine Idle Start-Stop with Heater

Off Cycle Technology	Make	Impacted Carlines (VW)	Drivetrain	Engine	Transmission	Trim Level / Option Code	Factory Model Code	GHG Class	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
Engine Idle Start/Stop w/ Heater	Volkswagen	Jetta Hybrid	FWD	1.4 TFSI	S7	All	All	PC	2.5	[]	2,961
											2,961


Off Cycle Technology	Make	Impacted Carlines (VW)	Drivetrain	Engine	Transmission	Trim Level / Option Code	Factory Model Code	GHG Class	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
Engine Idle Start/Stop w/ Heater	Volkswagen	Touareg Hybrid	AWD	3.0L TFSI	S8	All	All	LT	4.4	[]	95
Engine Idle Start/Stop w/ Heater	Audi	Q5 Hybrid	AWD	2.0L TFSI	S6	All	All	LT	4.4	[]	952
										[]	1,047

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Section 3--VWGoA MY 2013 Active Transmission Warm-up

Off Cycle Technology	Make	Impacted Carlines	Drive	Engine	Trans Type	Transmission	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
Active Transmission Warm-up	Audi	TT Coupe	AWD	R4 2.0 4V TFSI	S6	DQ-250-6A	1.5	[]	496
Active Transmission Warm-up	Audi	TT Roadster	AWD	R4 2.0 4V TFSI	S6	DQ-250-6A	1.5	[]	146
Active Transmission Warm-up	Audi	TTRS Coupe	AWD	2.5L I5	M6q	MQ500-6A	1.5	[]	148
Active Transmission Warm-up	Audi	A6 quattro	AWD	3.0L TFSI	S8q	AL551-8Q	1.5	[]	2,906
Active Transmission Warm-up	Audi	A7 quattro	AWD	3.0L TFSI	S8q	AL551-8Q	1.5	[]	1,941
Active Transmission Warm-up	Audi	A8	AWD	3.0L TFSI	S8q	AL551-8Q	1.5	[]	298
Active Transmission Warm-up	Audi	A8L	AWD	6.3L W12	S8q	AL551-8Q	1.5	[]	23
Active Transmission Warm-up	Audi	A8L	AWD	3.0L TFSI	S8q	AL551-8Q	1.5	[]	741
Active Transmission Warm-up	Volkswagen	Beetle	FWD	2.5L I5	S6	AQ-250-A6F	1.5	[]	4,546
Active Transmission Warm-up	Volkswagen	Beetle	FWD	R4 2.0 4V TFSI	S6	DQ-250-6F	1.5	[]	1,526
Active Transmission Warm-up	Volkswagen	Beetle Convertible	FWD	2.5L I5	S6	AQ-250-A6F	1.5	[]	3,679
Active Transmission Warm-up	Volkswagen	Beetle Convertible	FWD	R4 2.0 4V TFSI	S6	DQ-250-6F	1.5	[]	1,292
Active Transmission Warm-up	Volkswagen	Beetle Convertible TDI	FWD	R4 2.0 4V TDI CR	S6	DQ-250-6F	1.5	[]	639
Active Transmission Warm-up	Volkswagen	Beetle TDI	FWD	R4 2.0 4V TDI CR	S6	DQ-250-6F	1.5	[]	919
Active Transmission Warm-up	Volkswagen	CC	FWD	R4 2.0 4V TFSI	S6	DQ-250-6F	1.5	[]	8,902
Active Transmission Warm-up	Volkswagen	EOS	FWD	R4 2.0 4V TFSI	S6	DQ-250-6F	1.5	[]	1,399
Active Transmission Warm-up	Volkswagen	Golf	FWD	2.5L I5	S6	AQ-250-A6F	1.5	[]	2,717
Active Transmission Warm-up	Volkswagen	Golf TDI	FWD	R4 2.0 4V TDI CR	S6	DQ-250-6F	1.5	[]	1,723
Active Transmission Warm-up	Volkswagen	GTI	FWD	R4 2.0 4V TFSI	S6	DQ-250-6F	1.5	[]	3,265
Active Transmission Warm-up	Volkswagen	Jetta	FWD	2.5L I5	S6	AQ-250-A6F	1.5	[]	20,707
Active Transmission Warm-up	Volkswagen	Jetta	FWD	R4 2.0 MPI	S6	DQ-250-6F	1.5	[]	6,888
Active Transmission Warm-up	Volkswagen	Jetta GLI	FWD	2.0L 4V TFSI	S6	AQ-250-A6F	1.5	[]	1,951
Active Transmission Warm-up	Volkswagen	Jetta Sportwagon	FWD	2.5L I5	S6	AQ-250-A6F	1.5	[]	2,110
Active Transmission Warm-up	Volkswagen	Jetta Sportwagon TDI	FWD	R4 2.0 4V TDI CR	S6	DQ-250-6F	1.5	[]	4,639
Active Transmission Warm-up	Volkswagen	Jetta TDI	FWD	R4 2.0 4V TDI CR	S6	DQ-250-6F	1.5	[]	7,320
Active Transmission Warm-up	Volkswagen	Passat	FWD	2.5L I5	S6	AQ-250-A6F	1.5	[]	24,563
Active Transmission Warm-up	Volkswagen	Passat 4Motion	AWD	VR6 3.6 4V FSI	S6	DQ-250-6F	1.5	[]	934
Active Transmission Warm-up	Volkswagen	Passat TDI	FWD	R4 2.0 4V TDI CR	S6	DQ-250-6F	1.5	[]	10,704
									117,122

Off Cycle Technology	Make	Impacted Carlines	Drive	Engine	Trans Type	Transmission	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
Active Transmission Warm-up	Audi	Q7	AWD	3.0L TDI	SA8	AL1000-8A	3.2	[]	2,290
									2,290

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Section 3--VWGoA MY 2013 Active Engine Warm-Up

Off Cycle Attribute	Make	Impacted Carlines	GHG Class	Transmission	Drive Train	Family	Engine	Emission	Trim/Option Code	Total Credit Value gpm	Confidential Sales	Off-Cycle Credit in Mg
Active Engine Warm-Up	Volkswagen	Jetta GLI	PC	M6	FWD	EA 888 Gen III	R4 2.0 4V TFSI	PZEV-SULEV (+OGT)	GLI, GLI Autobahn, GLI Autobahn w/Nav	1.5	[]	260
Active Engine Warm-Up	Volkswagen	Jetta GLI	PC	S6	FWD	EA 888 Gen III	R4 2.0 4V TFSI	PZEV-SULEV (+OGT)	GLI, GLI Autobahn, GLI Autobahn w/Nav	1.5	[]	745
Active Engine Warm-Up	Volkswagen	Beetle	PC	M6	FWD	EA 888 Gen III	R4 2.0 4V TFSI	PZEV-SULEV (+OGT)	Turbo,Turbo Fender Edition, Turbo w/Sunroof and Sound, Turbo w/Sunroof,Sound, and Nav, R-Line w/Sound and Nav	1.5	[]	220
Active Engine Warm-Up	Volkswagen	Beetle	PC	S6	FWD	EA 888 Gen III	R4 2.0 4V TFSI	PZEV-SULEV (+OGT)	Turbo,Turbo Fender Edition, Turbo w/Sunroof and Sound, Turbo w/Sunroof,Sound, and Nav, R-Line w/Sound and Nav	1.5	[]	911
Active Engine Warm-Up	Volkswagen	Beetle Cabriolet	PC	M6	FWD	EA 888 Gen III	R4 2.0 4V TFSI	PZEV-SULEV (+OGT)	Turbo,Turbo w/Sound, Turbo w/Sound & Nav, 60s Edition	1.5	[]	191
Active Engine Warm-Up	Volkswagen	Beetle Cabriolet	PC	S6	FWD	EA 888 Gen III	R4 2.0 4V TFSI	PZEV-SULEV (+OGT)	Turbo,Turbo w/Sound, Turbo w/Sound & Nav, 60s Edition	1.5	[]	962
Active Engine Warm-Up	Audi	S6	PC	S8q	AWD	D3UJ	4.0L V8FSI	LEV II - ULEV / Tier 2 - BIN 5	All	1.5	[]	530
Active Engine Warm-Up	Audi	S7	PC	S8q	AWD	D3UJ	4.0L V8FSI	LEV II - ULEV / Tier 2 - BIN 5	All	1.5	[]	324
Active Engine Warm-Up	Audi	A8	PC	S8q	AWD	D3UJ	4.0L V8FSI	LEV II - ULEV / Tier 2 - BIN 5	All	1.5	[]	106
Active Engine Warm-Up	Audi	A8 L	PC	S8q	AWD	D3UJ	4.0L V8FSI	LEV II - ULEV / Tier 2 - BIN 5	All	1.5	[]	483
Active Engine Warm-Up	Audi	S8	PC	S8q	AWD	D3UJ	4.0L V8FSI	LEV II - ULEV / Tier 2 - BIN 5	All	1.5	[]	324
												5,056


Off Cycle Attribute	Make	Impacted Carlines	GHG Class	Transmission	Drive Train	Family	Engine	Emission	Trim/Option Code	Total Credit Value gpm	Confidential Sales	Off-Cycle Credit in Mg
Active Engine Warm-Up	Audi	Q7	LDT	SA8	AWD	3UG	3.0L TDI	LEV II - ULEV / Tier 2 - BIN 5	All TDI	3.2	[]	1,431
												1,431

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Section 3--VWGoA MY 2013 Thermal Control Technologies - Ventilated Seats

Off Cycle Technology	Subsystem	Make (MY 2013)	Impacted Carlines	Drive	Engine	Trans	GHG Class	Trim Level / Option Code	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
Thermal Control	Ventilated front seats	Audi	A5 Cabriolet	AWD	3.0L TFSI	S6	PC	PCC	1.0	[]	217
Thermal Control	Ventilated front seats	Audi	S5 Cabriolet	AWD	3.0L TFSI	S6	PC	PCC	1.0	[]	144
Thermal Control	Ventilated front seats	Audi	A7	AWD	3.0L TFSI	S6	PC	WPT	1.0	[]	754
Thermal Control	Ventilated front seats	Audi	S7	AWD	4.0L TFSI	S6	PC	PS8	1.0	[]	55
Thermal Control	Ventilated front seats	Audi	A8	AWD	3.0L TFSI	S8	PC	WTH	1.0	[]	13
Thermal Control	Ventilated front seats	Audi	A8	AWD	4.0L TFSI	S8	PC	WTH	1.0	[]	245
Thermal Control	Ventilated Front Seats	Audi	A8L	AWD	3.0L TFSI	S8	PC	WTH	1.0	[]	337
Thermal Control	Ventilated Front Seats	Audi	A8L	AWD	4.0L TFSI	S8	PC	WTH	1.0	[]	12
Thermal Control	Ventilated front seats	Audi	S8	AWD	4.0L TFSI	S8	PC	All	1.0	[]	198
Thermal Control	Ventilated front seats	Volkswagen	CC 4Motion	AWD	3.6L VR6	S6	PC	All	1.0	[]	351
										[]	2,326

Off Cycle Technology	Subsystem	Make (MY 2013)	Impacted Carlines	Drive	Engine	Trans	GHG Class	Trim Level / Option Code	Total Credit gpm	Confidential Sales	Off-Cycle Credit (Mg)
Thermal Control	Ventilated front seats	Audi	Q5 Hybrid	AWD	2.0L TFSI	S6	LT	PCC	1.0	[]	216
Thermal Control	Ventilated front seats	Audi	Q7	AWD	3.0L TFSI	S6	LT	S-Line	1.3	[]	1,218
Thermal Control	Ventilated front seats	Audi	Q7 TDI	AWD	3.0L TDI	S6	LT	WPT	1.3	[]	1,042
										[]	2,476

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Section 3--VWGoA MY 2013 Thermal Control Technologies- Solar Reflective Paint - PC

Off Cycle Technology	Subsystem	Make	Impacted Carlines	Drive	Engine	Transmission	GHG Class	Exterior Color	Exterior Paint Code	TSR Value(%)	Total Credit Value gpm	Confidential Sales	Off-Cycle Credit (Mg)
Thermal Control	Solar Reflective Paint	Audi	A3	AWD	2.0L TDI	S6	PC	Ibis White	T9T9		0.4	[]	28
Thermal Control	Solar Reflective Paint	Audi	A3	AWD	2.0L TFSI	M6	PC	Ibis White	T9T9		0.4	[]	1
Thermal Control	Solar Reflective Paint	Audi	A3	AWD	2.0L TFSI	S6	PC	Ibis White	T9T9		0.4	[]	11
Thermal Control	Solar Reflective Paint	Audi	A3 quattro	AWD	2.0L TFSI	S6	PC	Ibis White	T9T9		0.4	[]	11
Thermal Control	Solar Reflective Paint	Audi	Allroad	AWD	2.0L TFSI	S8	PC	Ibis White	T9T9		0.4	[]	5
Thermal Control	Solar Reflective Paint	Audi	Allroad	AWD	2.0L TFSI	S8	PC	Glacier White Metallic	2Y2Y		0.4	[]	63
Thermal Control	Solar Reflective Paint	Audi	A4	FWD	2.0L TFSI	S8	PC	Ibis White	T9T9		0.4	[]	144
Thermal Control	Solar Reflective Paint	Audi	A4 quattro	AWD	2.0L TFSI	M6	PC	Ibis White	T9T9		0.4	[]	12
Thermal Control	Solar Reflective Paint	Audi	A4 quattro	AWD	2.0L TFSI	S8	PC	Ibis White	T9T9		0.4	[]	229
Thermal Control	Solar Reflective Paint	Audi	A4	FWD	2.0L TFSI	S8	PC	Glacier White Metallic	2Y2Y		0.4	[]	41
Thermal Control	Solar Reflective Paint	Audi	A4 quattro	AWD	2.0L TFSI	S8	PC	Glacier White Metallic	2Y2Y		0.4	[]	131
Thermal Control	Solar Reflective Paint	Audi	A4 quattro	AWD	2.0L TFSI	M6	PC	Glacier White Metallic	2Y2Y		0.4	[]	9
Thermal Control	Solar Reflective Paint	Audi	A5 quattro	AWD	2.0L TFSI	M6	PC	Ibis White	T9T9		0.4	[]	6
Thermal Control	Solar Reflective Paint	Audi	A5 quattro	AWD	2.0L TFSI	M6	PC	Glacier White Metallic	2Y2Y		0.4	[]	2
Thermal Control	Solar Reflective Paint	Audi	A5 quattro	AWD	2.0L TFSI	S8	PC	Ibis White	T9T9		0.4	[]	87
Thermal Control	Solar Reflective Paint	Audi	A5 quattro	AWD	2.0L TFSI	S6	PC	Glacier White Metallic	2Y2Y		0.4	[]	53
Thermal Control	Solar Reflective Paint	Audi	A6	AWD	2.0L TFSI	CVT	PC	Ibis White	T9T9		0.4	[]	21
Thermal Control	Solar Reflective Paint	Audi	A6	FWD	2.0L TFSI	S6	PC	Glacier White Metallic	2Y2Y		0.4	[]	16
Thermal Control	Solar Reflective Paint	Audi	A6 quattro	AWD	2.0L TFSI	M6	PC	Ibis White	T9T9		0.4	[]	43
Thermal Control	Solar Reflective Paint	Audi	A6 quattro	AWD	3.0L TFSI	S8	PC	Ibis White	T9T9		0.4	[]	47
Thermal Control	Solar Reflective Paint	Audi	A6 quattro	AWD	2.0L TFSI	S8	PC	Glacier White Metallic	2Y2Y		0.4	[]	51
Thermal Control	Solar Reflective Paint	Audi	A6 quattro	AWD	3.0L TFSI	S8	PC	Glacier White Metallic	2Y2Y		0.4	[]	68
Thermal Control	Solar Reflective Paint	Audi	A7	AWD	3.0L TFSI	S8	PC	Ibis White	T9T9		0.4	[]	32
Thermal Control	Solar Reflective Paint	Audi	A7	AWD	3.0L TFSI	S8	PC	Glacier White Metallic	2Y2Y		0.4	[]	48
Thermal Control	Solar Reflective Paint	Audi	A8	AWD	3.0L TFSI	S8	PC	Ibis White	T9T9		0.4	[]	3
Thermal Control	Solar Reflective Paint	Audi	A8	AWD	3.0L TFSI	S8	PC	Glacier White Metallic	2Y2Y		0.4	[]	7
Thermal Control	Solar Reflective Paint	Audi	A8	AWD	4.0L TFSI	S8	PC	Ibis White	T9T9		0.4	[]	2
Thermal Control	Solar Reflective Paint	Audi	A8	AWD	4.0L TFSI	S8	PC	Glacier White Metallic	2Y2Y		0.4	[]	3
Thermal Control	Solar Reflective Paint	Audi	A8L	AWD	3.0L TFSI	S8	PC	Ibis White	T9T9		0.4	[]	11
Thermal Control	Solar Reflective Paint	Audi	A8L	AWD	3.0L TFSI	S8	PC	Glacier White Metallic	2Y2Y		0.4	[]	19
Thermal Control	Solar Reflective Paint	Audi	A8L	AWD	4.0L TFSI	S8	PC	Glacier White Metallic	2Y2Y		0.4	[]	13

Section 3--VWGoA MY 2013 Thermal Control Technologies- Solar Reflective Paint - PC

Thermal Control	Solar Reflective Paint	Audi	A8L	AWD	4.0L TFSI	S8	PC	Ibis White	T9T9		0.4	[		]	7
Thermal Control	Solar Reflective Paint	Audi	A8L	AWD	6.3L W12	S8	PC	Ibis White	T9T9		0.4	[		]	1
Thermal Control	Solar Reflective Paint	Audi	RS5 Coupe	AWD	4.2L V8 FSI	S6	PC	Ibis White	T9T9		0.4	[		]	11
Thermal Control	Solar Reflective Paint	Audi	S4	AWD	3.0L TFSI	M6	PC	Ibis White	T9T9		0.4	[		]	8
Thermal Control	Solar Reflective Paint	Audi	S4	AWD	3.0L TFSI	S7	PC	Ibis White	T9T9		0.4	[		]	42
Thermal Control	Solar Reflective Paint	Audi	S4	AWD	3.0L TFSI	M6	PC	Glacier White Metallic	2Y2Y		0.4	[		]	9
Thermal Control	Solar Reflective Paint	Audi	S4	AWD	3.0L TFSI	S7	PC	Glacier White Metallic	2Y2Y		0.4	[		]	30
Thermal Control	Solar Reflective Paint	Audi	S5	AWD	3.0L TFSI	M6	PC	Ibis White	T9T9		0.4	[		]	4
Thermal Control	Solar Reflective Paint	Audi	S5	AWD	3.0L TFSI	M6	PC	Glacier White Metallic	2Y2Y		0.4	[		]	4
Thermal Control	Solar Reflective Paint	Audi	S5	AWD	3.0L TFSI	S6	PC	Ibis White	T9T9		0.4	[		]	23
Thermal Control	Solar Reflective Paint	Audi	S5	AWD	3.0L TFSI	S6	PC	Glacier White Metallic	2Y2Y		0.4	[		]	22
Thermal Control	Solar Reflective Paint	Audi	S6	AWD	4.0L TFSI	S8	PC	Ibis White	T9T9		0.4	[		]	6
Thermal Control	Solar Reflective Paint	Audi	S6	AWD	4.0L TFSI	S8	PC	Glacier White Metallic	2Y2Y		0.4	[		]	15
Thermal Control	Solar Reflective Paint	Audi	S7	AWD	4.0L TFSI	S8	PC	Ibis White	T9T9		0.4	[		]	4
Thermal Control	Solar Reflective Paint	Audi	S7	AWD	4.0L TFSI	S8	PC	Glacier White Metallic	2Y2Y		0.4	[		]	9
Thermal Control	Solar Reflective Paint	Audi	S8	AWD	4.0L TFSI	S8	PC	Glacier White Metallic	2Y2Y		0.4	[		]	8
Thermal Control	Solar Reflective Paint	Audi	TT Coupe quattro	AWD	2.0L TFSI	S6	PC	Ibis White	T9T9		0.4	[		]	16
Thermal Control	Solar Reflective Paint	Audi	TT Coupe quattro	AWD	2.0L TFSI	S6	PC	Glacier White Metallic	2Y2Y		0.4	[		]	9
Thermal Control	Solar Reflective Paint	Audi	TTRS Coupe	AWD	2.5L TFSI	M6	PC	Ibis White	T9T9		0.4	[		]	4
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	FWD	2.0L TDI	M6	PC	Reflex Silver	8E8E		0.4	[		]	5
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	FWD	2.0L TDI	M6	PC	Candy White	B4B4		0.4	[		]	9
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	FWD	2.0L TDI	S6	PC	Reflex Silver	8E8E		0.4	[		]	20
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	FWD	2.0L TDI	S6	PC	Candy White	B4B4		0.4	[		]	52
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	FWD	2.0T TFSI	M6	PC	Reflex Silver	8E8E		0.4	[		]	6
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	FWD	2.0T TFSI	M6	PC	Candy White	B4B4		0.4	[		]	12
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	FWD	2.0T TFSI	S6	PC	Reflex Silver	8E8E		0.4	[		]	28
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	FWD	2.0T TFSI	S6	PC	Candy White	B4B4		0.4	[		]	64
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	FWD	2.5L	M6	PC	Reflex Silver	8E8E		0.4	[		]	9
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	FWD	2.5L	M6	PC	Candy White	B4B4		0.4	[		]	16
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	FWD	2.5L	S6	PC	Reflex Silver	8E8E		0.4	[		]	111
Thermal Control	Solar Reflective Paint	Volkswagen	Beetle	FWD	2.5L	S6	PC	Candy White	B4B4		0.4	[		]	210
Thermal Control	Solar Reflective Paint	Volkswagen	CC	FWD	2.0T TFSI	M6	PC	Reflex Silver	8E8E		0.4	[		]	14
Thermal Control	Solar Reflective Paint	Volkswagen	CC	FWD	2.0T TFSI	M6	PC	Candy White	B4B4		0.4	[		]	26
Thermal Control	Solar Reflective Paint	Volkswagen	CC	FWD	2.0T TFSI	S6	PC	Reflex Silver	8E8E		0.4	[		]	246

Section 3--VWGoA MY 2013 Thermal Control Technologies- Solar Reflective Paint - PC

Thermal Control	Solar Reflective Paint	Volkswagen	CC	FWD	2.0T TFSI	S6	PC	Candy White	B4B4		0.4 [		]	489
Thermal Control	Solar Reflective Paint	Volkswagen	CC 4Motion	FWD	3.6L VR6	S6	PC	Reflex Silver	8E8E		0.4 [		]	17
Thermal Control	Solar Reflective Paint	Volkswagen	CC 4Motion	FWD	3.6L VR6	S6	PC	Candy White	B4B4		0.4 [		]	29
Thermal Control	Solar Reflective Paint	Volkswagen	EOS	FWD	2.0T TFSI	S6	PC	Reflex Silver	8E8E		0.4 [		]	34
Thermal Control	Solar Reflective Paint	Volkswagen	EOS	FWD	2.0T TFSI	S6	PC	Candy White	B4B4		0.4 [		]	97
Thermal Control	Solar Reflective Paint	Volkswagen	Golf	FWD	2.0L TDI	M6	PC	Reflex Silver	8E8E		0.4 [		]	31
Thermal Control	Solar Reflective Paint	Volkswagen	Golf	FWD	2.0L TDI	M6	PC	Candy White	B4B4		0.4 [		]	40
Thermal Control	Solar Reflective Paint	Volkswagen	Golf	FWD	2.0L TDI	S6	PC	Reflex Silver	8E8E		0.4 [		]	66
Thermal Control	Solar Reflective Paint	Volkswagen	Golf	FWD	2.0L TDI	S6	PC	Candy White	B4B4		0.4 [		]	95
Thermal Control	Solar Reflective Paint	Volkswagen	Golf	FWD	2.5L	M6	PC	Reflex Silver	8E8E		0.4 [		]	9
Thermal Control	Solar Reflective Paint	Volkswagen	Golf	FWD	2.5L	M6	PC	Candy White	B4B4		0.4 [		]	11
Thermal Control	Solar Reflective Paint	Volkswagen	Golf	FWD	2.5L	S6	PC	Reflex Silver	8E8E		0.4 [		]	107
Thermal Control	Solar Reflective Paint	Volkswagen	Golf	FWD	2.5L	S6	PC	Candy White	B4B4		0.4 [		]	137
Thermal Control	Solar Reflective Paint	Volkswagen	Golf R	FWD	2.0 TFSI	M6	PC	Candy White	B4B4		0.4 [		]	39
Thermal Control	Solar Reflective Paint	Volkswagen	GTI	FWD	2.0T TFSI	M6	PC	Candy White	B4B4		0.4 [		]	106
Thermal Control	Solar Reflective Paint	Volkswagen	GTI	FWD	2.0T TFSI	S6	PC	Candy White	B4B4		0.4 [		]	232
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	FWD	2.0L TDI	M6	PC	Reflex Silver	8E8E		0.4 [		]	45
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	FWD	2.0L TDI	M6	PC	Candy White	B4B4		0.4 [		]	83
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	FWD	2.0L TDI	S6	PC	Reflex Silver	8E8E		0.4 [		]	223
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	FWD	2.0L TDI	S6	PC	Candy White	B4B4		0.4 [		]	401
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	FWD	2.0L MPI	M6	PC	Reflex Silver	8E8E		0.4 [		]	50
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	FWD	2.0L MPI	M6	PC	Candy White	B4B4		0.4 [		]	56
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	FWD	2.0L MPI	S6	PC	Reflex Silver	8E8E		0.4 [		]	259
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	FWD	2.0L MPI	S6	PC	Candy White	B4B4		0.4 [		]	354
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	FWD	2.5L	M6	PC	Reflex Silver	8E8E		0.4 [		]	36
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	FWD	2.5L	M6	PC	Candy White	B4B4		0.4 [		]	70
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	FWD	2.5L	S6	PC	Reflex Silver	8E8E		0.4 [		]	670
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta	FWD	2.5L	S6	PC	Candy White	B4B4		0.4 [		]	1,132
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta GLI	FWD	2.0T TFSI	M6	PC	Candy White	B4B4		0.4 [		]	41
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta GLI	FWD	2.0T TFSI	S6	PC	Candy White	B4B4		0.4 [		]	101
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta Sportswagon	FWD	2.0L TDI	M6	PC	Reflex Silver	8E8E		0.4 [		]	39


Section 3--VWGoA MY 2013 Thermal Control Technologies- Solar Reflective Paint - PC

Thermal Control	Solar Reflective Paint	Volkswagen	Jetta Sportswagon	FWD	2.0L TDI	M6	PC	Candy White	B4B4		0.4	[		]	73
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta Sportswagon	FWD	2.0L TDI	S6	PC	Reflex Silver	8E8E		0.4	[		]	170
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta Sportswagon	FWD	2.0L TDI	S6	PC	Candy White	B4B4		0.4	[		]	258
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta Sportswagon	FWD	2.5L	M6	PC	Reflex Silver	8E8E		0.4	[		]	5
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta Sportswagon	FWD	2.5L	M6	PC	Candy White	B4B4		0.4	[		]	6
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta Sportswagon	FWD	2.5L	S6	PC	Reflex Silver	8E8E		0.4	[		]	77
Thermal Control	Solar Reflective Paint	Volkswagen	Jetta Sportswagon	FWD	2.5L	S6	PC	Candy White	B4B4		0.4	[		]	100
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	FWD	2.0L TDI	M6	PC	Reflex Silver	8E8E		0.4	[		]	27
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	FWD	2.0L TDI	M6	PC	Candy White	B4B4		0.4	[		]	41
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	FWD	2.0L TDI	S6	PC	Reflex Silver	8E8E		0.4	[		]	260
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	FWD	2.0L TDI	S6	PC	Candy White	B4B4		0.4	[		]	544
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	FWD	2.5L	M6	PC	Reflex Silver	8E8E		0.4	[		]	19
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	FWD	2.5L	M6	PC	Candy White	B4B4		0.4	[		]	27
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	FWD	2.5L	S6	PC	Reflex Silver	8E8E		0.4	[		]	752
Thermal Control	Solar Reflective Paint	Volkswagen	Passat	FWD	2.5L	S6	PC	Candy White	B4B4		0.4	[		]	1,251
Thermal Control	Solar Reflective Paint	Volkswagen	Passat 4Motion	FWD	3.6L VR6	M6	PC	Candy White	B4B4		0.4	[		]	44
Thermal Control	Solar Reflective Paint	Volkswagen	Passat 4Motion	FWD	3.6L VR6	S6	PC	Reflex Silver	8E8E		0.4	[		]	25
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan	FWD	2.0T TFSI	M6	PC	Reflex Silver	8E8E		0.4	[		]	7
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan	FWD	2.0T TFSI	M6	PC	Candy White	B4B4		0.4	[		]	6
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan	FWD	2.0T TFSI	M6	PC	White Gold	7B7B		0.4	[		]	2
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan	FWD	2.0T TFSI	S6	PC	Reflex Silver	8E8E		0.4	[		]	345
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan	FWD	2.0T TFSI	S6	PC	Candy White	B4B4		0.4	[		]	558
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan	FWD	2.0T TFSI	S6	PC	White Gold	7B7B		0.4	[]	163
												[]	12,136

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Section 3--VWGoA MY 2013 Thermal Control Technologies - Solar Refeective Paint - LDT

Off Cycle Technology	Subsystem	Make	Impacted Carlines	Drive	Engine	Trans	GHG Class	Exterior Color	Exterior Paint Code	TSR Value(%)	Total Credit Value gpm	Confidential Sales	Off-Cycle Credit (Mg)
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan 4MO	AWD	2.0L	S6	LT	Reflex Silver	8E8E		0.5	[]	233
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan 4MO	AWD	2.0L	S6	LT	White Gold	7B7B		0.5	[]	192
Thermal Control	Solar Reflective Paint	Volkswagen	Tiguan 4MO	AWD	2.0L	S6	LT	Candy White	B4B4		0.5	[]	354
Thermal Control	Solar Reflective Paint	Audi	Q5	AWD	2.0L	S6	LT	Ibis White	T9T9		0.5	[]	16
Thermal Control	Solar Reflective Paint	Audi	Q5	AWD	3.0L	S6	LT	Ibis White	T9T9		0.5	[]	1
Thermal Control	Solar Reflective Paint	Audi	Q5	AWD	2.0L	S6	LT	Glacier White Metallic	2Y2Y		0.5	[]	16
Thermal Control	Solar Reflective Paint	Audi	Q5	AWD	3.0L	S8	LT	Glacier White Metallic	2Y2Y		0.5	[]	1
Thermal Control	Solar Reflective Paint	Audi	Q7	AWD	3.0I TDI	S8	LT	Glacier White Metallic	2Y2Y		0.5	[]	97
Thermal Control	Solar Reflective Paint	Audi	Q7	AWD	3.0L	S8	LT	Glacier White Metallic	2Y2Y		0.5	[]	254
												[]	1,164

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Section 3--VWGoA MY 2013 Thermal Control Technologies - Thermal Glazing -PC

Off-Cycle Technology	Subsystem	Make	Impacted Carlines	Drive	Engine	Trans	GHG Class	Glass Roof	Total Credit Value gpm	Confidential Sales	Off-Cycle Credit (Mg)
Thermal Control	Thermal Glazing	Volkswagen	Beetle TDI	FWD	2.0L TDI	M6	PC	Sunroof		[]	15
Thermal Control	Thermal Glazing	Volkswagen	Beetle TDI	FWD	2.0L TDI	S6	PC	Sunroof		[]	80
Thermal Control	Thermal Glazing	Volkswagen	Beetle	FWD	2.0L	M6	PC	Sunroof		[]	22
Thermal Control	Thermal Glazing	Volkswagen	Beetle	FWD	2.0L	S6	PC	Sunroof		[]	108
Thermal Control	Thermal Glazing	Volkswagen	Beetle	FWD	2.5L	M6	PC	Sunroof		[]	19
Thermal Control	Thermal Glazing	Volkswagen	Beetle	FWD	2.5L	S6	PC	Sunroof		[]	226
Thermal Control	Thermal Glazing	Volkswagen	Golf TDI	FWD	2.0L TDI	M6	PC	Sunroof		[]	23
Thermal Control	Thermal Glazing	Volkswagen	Golf TDI	FWD	2.0L TDI	S6	PC	Sunroof		[]	56
Thermal Control	Thermal Glazing	Volkswagen	Golf	FWD	2.5L	M6	PC	Yes, Sunroof		[]	28
Thermal Control	Thermal Glazing	Volkswagen	Golf	FWD	2.5L	S6	PC	Yes, Sunroof		[]	295
Thermal Control	Thermal Glazing	Volkswagen	Jetta	FWD	2.0L MPI	M6	PC	Yes, Sunroof		[]	12
Thermal Control	Thermal Glazing	Volkswagen	Jetta	FWD	2.0L MPI	S6	PC	Yes, Sunroof		[]	56
Thermal Control	Thermal Glazing	Volkswagen	Jetta	FWD	2.5L	M6	PC	Yes, Sunroof		[]	57
Thermal Control	Thermal Glazing	Volkswagen	Jetta	FWD	2.5L	S6	PC	Yes, Sunroof		[]	839
Thermal Control	Thermal Glazing	Volkswagen	Passat TDI	FWD	2.0L TDI	M6	PC	Yes, Sunroof		[]	193
Thermal Control	Thermal Glazing	Volkswagen	Passat TDI	FWD	2.0L TDI	S6	PC	Yes, Sunroof		[]	1,174
Thermal Control	Thermal Glazing	Volkswagen	Passat	FWD	2.5L	S6	PC	Yes, Sunroof		[]	1,779
Thermal Control	Thermal Glazing	Volkswagen	Passat	FWD	3.6L	S6	PC	Yes, Sunroof		[]	58
Thermal Control	Thermal Glazing	Volkswagen	Tiguan	FWD	2.0L	S6	PC	No,Rear windows tinted		[]	230
Thermal Control	Thermal Glazing	Volkswagen	Tiguan	FWD	2.0L	S6	PC	Yes, Sunroof		[]	115
Thermal Control	Thermal Glazing	Audi	A3	FWD	2.0L TDI	S6	PC	Yes, Sunroof		[]	251
Thermal Control	Thermal Glazing	Audi	A3	FWD	2.0L TFSI	M6	PC	Yes, Sunroof		[]	117
Thermal Control	Thermal Glazing	Audi	A3	FWD	2.0L TFSI	S6	PC	Yes, Sunroof		[]	16
Thermal Control	Thermal Glazing	Audi	A3 Quattro	AWD	2.0L TFSI	S6	PC	Yes, Sunroof		[]	125
Thermal Control	Thermal Glazing	Audi	A4 Allroad	FWD	2.0L	CVT	PC	Yes, Sunroof		[]	245
Thermal Control	Thermal Glazing	Audi	A4 quattro	AWD	2.0L	M6	PC	Yes, Sunroof		[]	153
Thermal Control	Thermal Glazing	Audi	A4 quattro	AWD	2.0L	S6	PC	Yes, Sunroof		[]	1,442
Thermal Control	Thermal Glazing	Audi	A5 quattro	AWD	2.0L	M6	PC	Yes, Sunroof		[]	17
Thermal Control	Thermal Glazing	Audi	A5 quattro	AWD	2.0L	S6	PC	Yes, Sunroof		[]	155
Thermal Control	Thermal Glazing	Audi	A6	AWD	2.0L	CVT	PC	Yes, Sunroof		[]	208
Thermal Control	Thermal Glazing	Audi	A6 quattro	AWD	2.0L	M6	PC	Yes, Sunroof		[]	698
Thermal Control	Thermal Glazing	Audi	A6 quattro	AWD	3.0L	S6	PC	Yes, Sunroof		[]	975
Thermal Control	Thermal Glazing	Audi	A7	AWD	3.0L	S6	PC	Yes, Sunroof		[]	126
Thermal Control	Thermal Glazing	Audi	A8	AWD	3.0L	S8	PC	Yes, Sunroof		[]	99
Thermal Control	Thermal Glazing	Audi	A8	AWD	4.0L	S8	PC	Yes, Sunroof		[]	35
											10,047

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Section 3--VWGoA MY 2013 Thermal Control Technologies - Thermal Glazing - LDT

Off Cycle Technology	Subsystem	Make (MY 2013)	Impacted Carlines	Drive	Engine	Trans	Trim/Factory Code/Option Code	Glass Roof	GHG Class	Total Credit Value gpm	Confidential Sales	Off-Cycle Credit (Mg)
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Tiguan 4Motion	AWD	2.0L TFSI	S6	S 4Motion	No, no tinted windows	LT		[]	83
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Tiguan 4Motion	AWD	2.0L TFSI	S6	S 4Motion w/Sunroof	Yes, Green Tinted Windows	LT		[]	418
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Tiguan 4Motion	AWD	2.0L TFSI	S6	SE 4 Motion	No, Dark green tinted windows	LT		[]	33
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Tiguan 4Motion	AWD	2.0L	S6	SE 4 Motion w/ Sunroof, SEL 4 Motion w/Sunroof	Yes, Dark green tinted windows	LT		[]	1,055
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Touareg	AWD	3.6L VR6	S8	7P5203	No, Green tinted windows	LT		[]	182
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Touareg	AWD	3.6L VR6	S8	7P5103	No, Green tinted windows	LT		[]	228
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Touareg	AWD	3.6L VR6	S8	7P5303	Yes, Dark green tinted windows	LT		[]	354
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Touareg	AWD	3.6L VR6	S8	7P5403	Yes, Dark green tinted windows	LT		[]	173
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Touareg	AWD	3.0L TDI	S8	7P52K3	No, Green tinted windows	LT		[]	26
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Touareg	AWD	3.0L TDI	S8	7P51K3	No, Green tinted windows	LT		[]	112
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Touareg	AWD	3.0L TDI	S8	7P53K3	Yes, Dark green tinted windows	LT		[]	342
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Touareg	AWD	3.0L TDI	S8	7P54K3	Yes, Dark green tinted windows	LT		[]	250
Thermal Control	Thermal Glazing - Sunroof	Volkswagen	Touareg Hybrid	AWD	3.0L TFSI	S8	7P5293	Yes, Dark green tinted windows	LT		[]	22
Thermal Control	Thermal Glazing - Sunroof	Audi	Q5	AWD	2.0L TFSI	S8	WPS	Yes	LT		[]	4,040
Thermal Control	Thermal Glazing - Sunroof	Audi	Q5 Hybrid	AWD	2.0L TFSI Hybrid	S8	Hybrid	yes	LT		[]	195
Thermal Control	Thermal Glazing - Sunroof	Audi	Q5	AWD	3.2L	S8	All	Yes	LT		[]	1,294
Thermal Control	Thermal Glazing - Sunroof	Audi	Q7	AWD	3.0L TFSI	S8	All	Yes	LT		[]	252
Thermal Control	Thermal Glazing - Sunroof	Audi	Q7	AWD	3.0L TDI	S8	All	Yes	LT		[]	795

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