



TPE
Automotive

ENFLEX[®]
& EZPRENE[®]
TPV

ENSOFIT[®]
TPE-S



“Don’t try to be
the best, try to
work with the
best”

Raf Van Gorp
Founder



ENFLEX® & EZPRENE® TPV&TPO / ENSOFT® TPE-S

Ravago TPE in Automotive Industry

Our global network of support works for you to keep up with automotive industry demands. We collaborate with OEM's and their suppliers to provide optimal material solutions for our customers in a multitude of automotive applications. Ravago's automotive solutions range from TPE-thermoplastic elastomers to engineering plastics to TPU & PU systems.

Our TPE product portfolio is designed specifically to meet the OEM requirements for the under the hood, interior and exterior applications. If needed, our materials can get modified to meet unique specifications by highly flexible and capable R &D center. TPE Thermoplastic Elastomers has been manufacturing at Ravago Petrokimya under Ensoft (styrene copolymer TPE-S), TPE-V Enflex & Ezprene (EPDM-PP) brands. Production plants of thermoplastic elastomers at Ravago Group are located in Turkey, Germany and USA China, India, Russia.

Ravago has obtained all the key quality management systems. ISO 9001 ensures that Ravago supplies all the products with consistent quality that meet requirements. Our ISO 14001 Certification of Environmental Management System, demonstrates our strong commitment to the environment.

The Automotive Quality System IATF 16949, ensures our high quality production and enables us to be one of the most important suppliers in the automotive market.



ENFLEX® & EZPRENE® TPV&TPO / ENSOFT® TPE-S



Under the Hood Applications	Interior Applications	Exterior Applications
Long term Fluid & heat resistance	Excellent Aesthetics	Long Term UV & Ozone Resistance
High tear resistance	UV resistance	Weatherability
Suitable for blow molding, Injection, Extrusion	Low fogging	Temperature stability
Fast cycle times	Low odour & Emission	Flexible at low temperatures
Low weight	Adhesion to different polar Substrates PC-ABS,PC-ABS	Excellent surface
Recycable & Flexible	Scratch & abrasion resistance	Lightweight solutions
	Soft touch & Antislip	Excellent co-extrusion and 2K behavior to PP
	Low weight & Recycable	Alternative to EPDM
	Color flexibility	





ENFLEX® & EZPRENE® TPV&TPO / ENSOFT® TPE-S

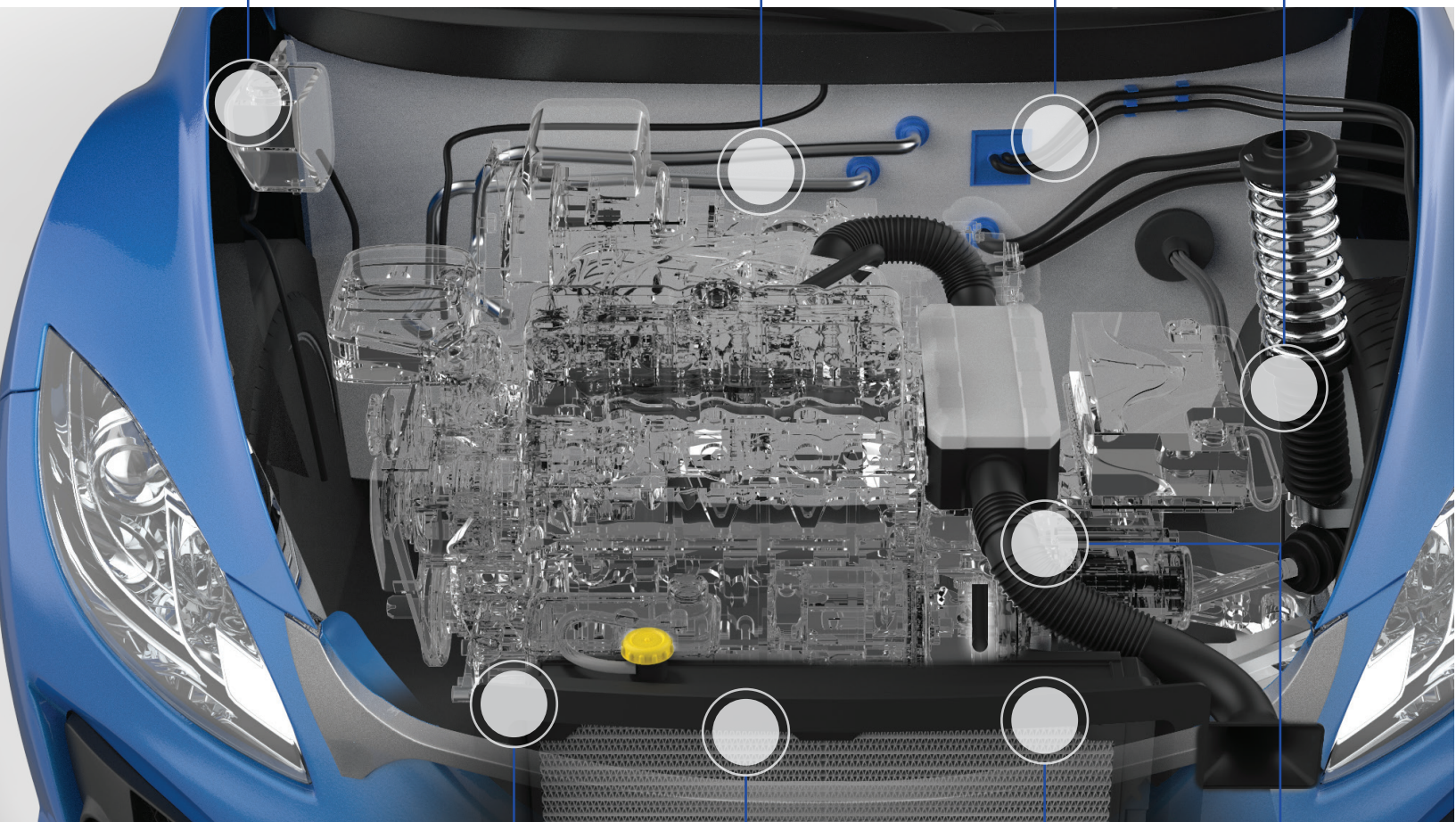
Under the Hood Applications

Windshield
washing system hose

AC venting flaps

Cable collars

Suspension bellow



Air guide seal

Radiator gaskets

Under the hood
gasket

Air ducts & sealing
gasket



ENFLEX® & EZPRENE® TPV&TPO / ENSOFT® TPE-S

Long term Fluid & Heat resistance
High tear resistance
Suitable for blow molding, Injection, Extrusion
Fast cycle times
Low weight
Recycable & Flexible



Air Duct



Suspension Bellow



Fuel Door Housing

Material	Application	OEM
ENFLEX VL120-40D	Clean - Dirty Air Duct, Joint /Pinion Boots	FORD - FIAT- DAIMLER -VW
ENFLEX VL120-90A	Clean - Dirty Air Duct, Joint /Pinion Boots	FORD - FIAT- DAIMLER -VW
ENFLEX VL120-65A VL120-70A	Fuel door housing	VW - FORD

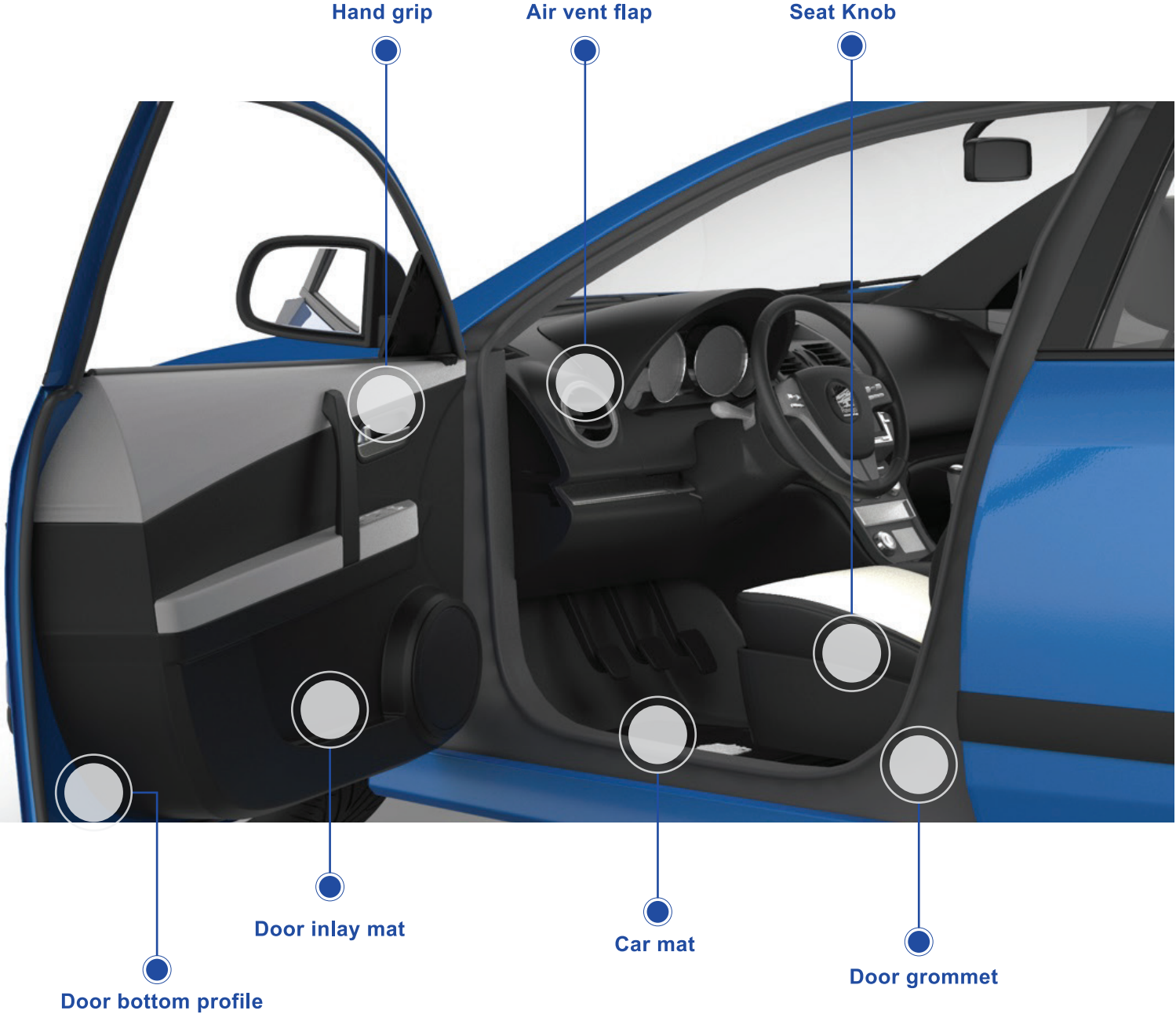
Specification Meets

Heat Aging /Resistance	ISO 188/ASTM D 573
Aging at Oil immersion/ Effect of Liquids	ISO 1817/ASTM D 471
Flammability	ISO 3795, TL1010 / FMVSS 302
Ozone Resistance	ISO 1431-1



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Interior Applications





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Excellent Aesthetics
UV resistance
Low fogging
Low odour & Emission
Adhesion to different polar Substrates PC-ABS, PC-ABS
Scratch & abrasion resistance
Soft touch & Antislip
Low weight & Recycable
Color flexibility

Dashboard inlay mat

Glove box mat

Air vent thumb wheel

Door panel

Ignition button

Arm rest

Cup holder

Gear cover

Center console inlay mat



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Car mat-inlaymat



Car mat-inlaymat



Car mat-inlaymat

Material	Application	OEM
ENSOFT SX626-67A	Car mat-inlaymat	VW - Porsche TL52693
ENSOFT SO146-60A	Car mat-inlaymat	GM - GM15702
ENSOFT SO646-85A	Car mat-inlaymat	Renault-32-05-837

Specification Meets

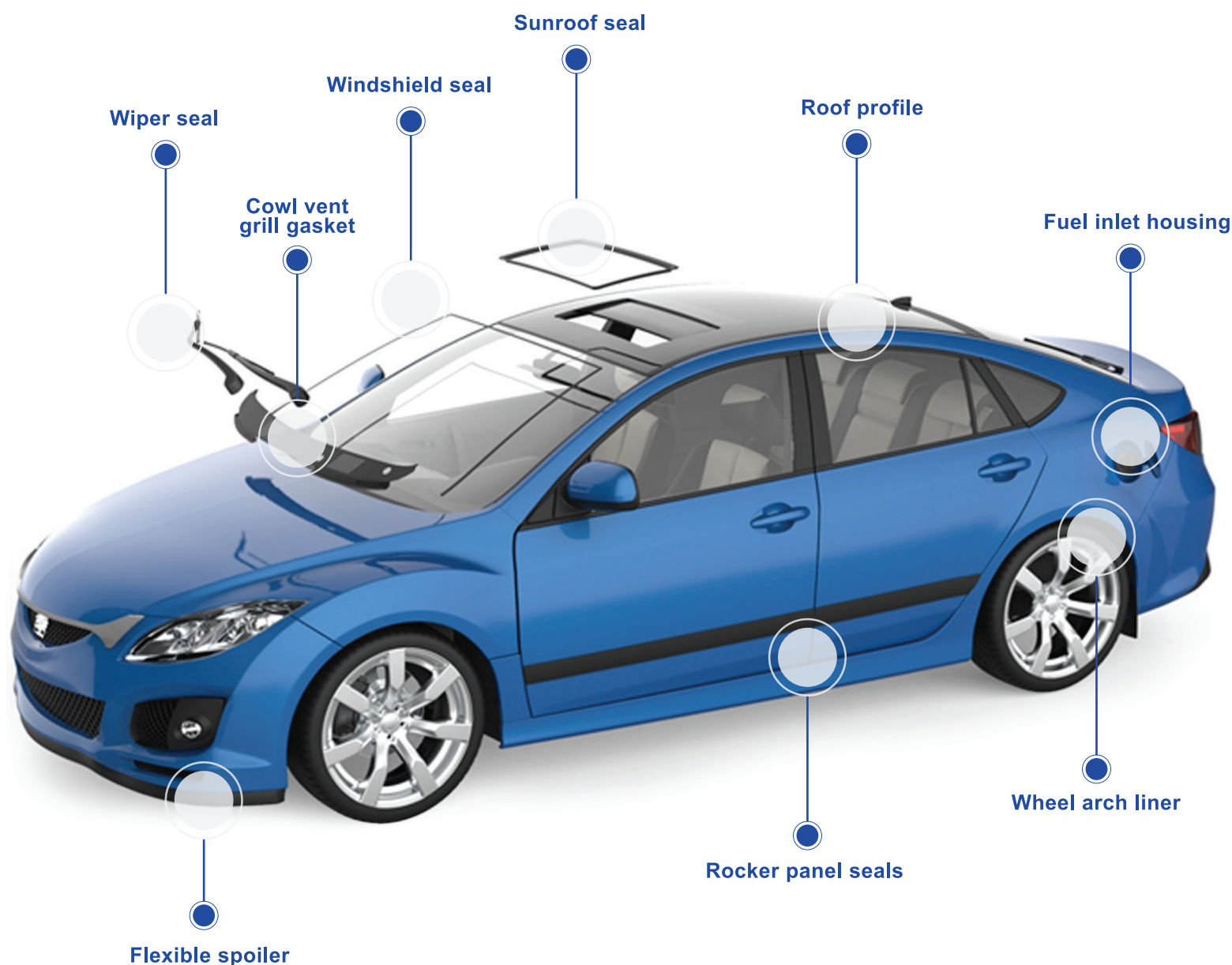
VOC	VDA 277 / VDA 278
Fogging	VDA 278 / DIN 75201 / PV3015
Odour	VDA 270 / PV3900
Flammability	TL1010 / FMVSS 302
Abrasion	ISO 4649
Light resistance	ISO 105-B06



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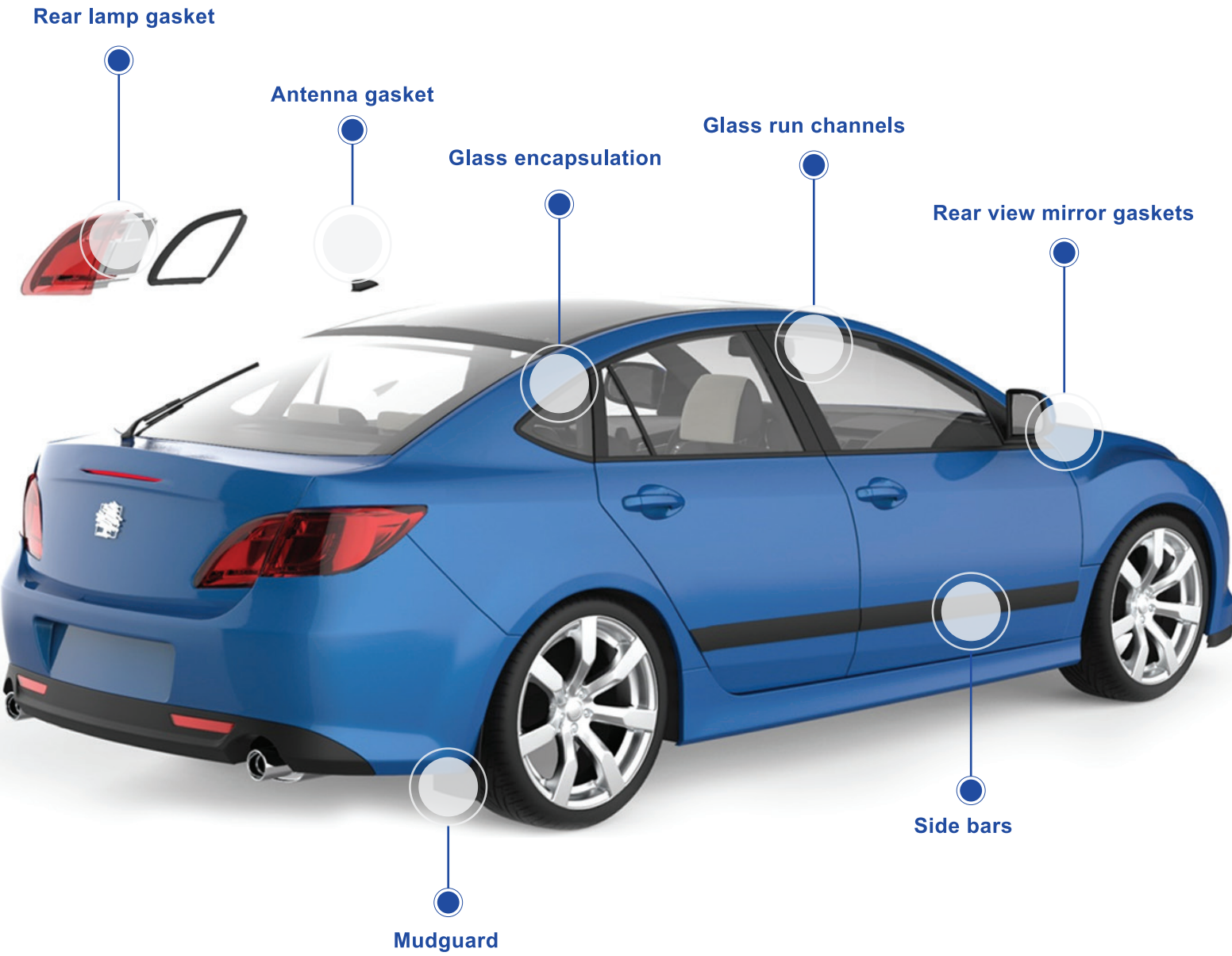
Exterior Applications

Long Term UV & Ozone Resistance
Weatherability
Temperature stability
Flexible at low temperatures
Excellent surface
Lightweight solutions
Excellent co-extrusion and 2K behavior to PP
Alternative to EPDM





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Weather Seals

Material	Application	OEM
ENFLEX VU420-55A	Weather Seals	FORD – VW – DAIMLER –FIAT –Stellantis - GM
ENFLEX VU420-65A ENFLEX VU420-40D	Weather Seals	VW-BMW
ENFLEX VU420-75A	Weather Seals	FCA
ENFLEX VL127-65A ENFLEX VL127-65A	Weather Seals	TOYOTA

Specification Meets

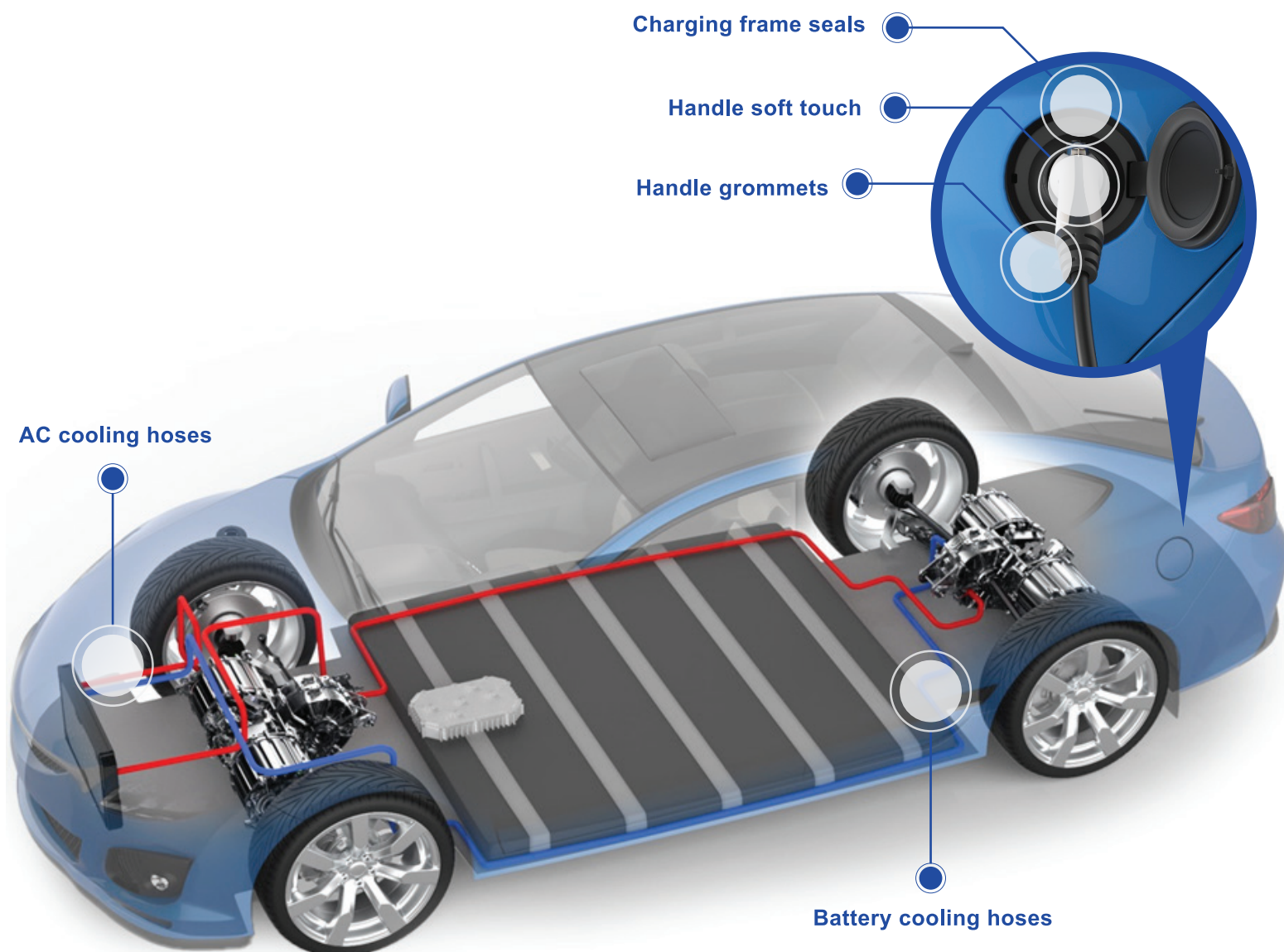
Artificial Aging by Weather-ometer	VW3930-3929, PSA D271389_H
Natural Weathering	Arizona-Florida-SAE J1976
Ozone Resistance	ISO1431-1
Combined Weatherability Test	TSM1707G-2016



ENFLEX® & EZPRENE® TPV&TPO / ENSOFT® TPE-S

Electrical Vehicle Applications

Dimensional stability
Flame retardancy
Replacement to EPDM & PA
Long Term UV & Ozone Resistance
Weatherability
Temperature stability
Flexible at low temperatures





ENFLEX® & EZPRENE® TPV&TPO / **ENSOFIT®** TPE-S

Ravago Sustainability

Ravago Recycled Series

SEBS Ensoft SN141-161 Series & SN 300 Series & TPV Enflex VN420 Series

PIR: Post Industrial Recycled and is the raw material made from waste generated within the industry.

PCR: Post Consumer Recycled and is the raw material made from waste from the consumer/end user.

	TPE ENSOFIT®	TPV ENFLEX®	TPO ENFLEX®
Density gr/cm3	0,90 - 1,18	0,97	0,90 - 1,18
Hardness	60A up to 45D	60A up to 50D	60A up to 45D
Recycled ratio	%6 up to % 50		
Process Method	Extrusion - Injection- Blow molding		

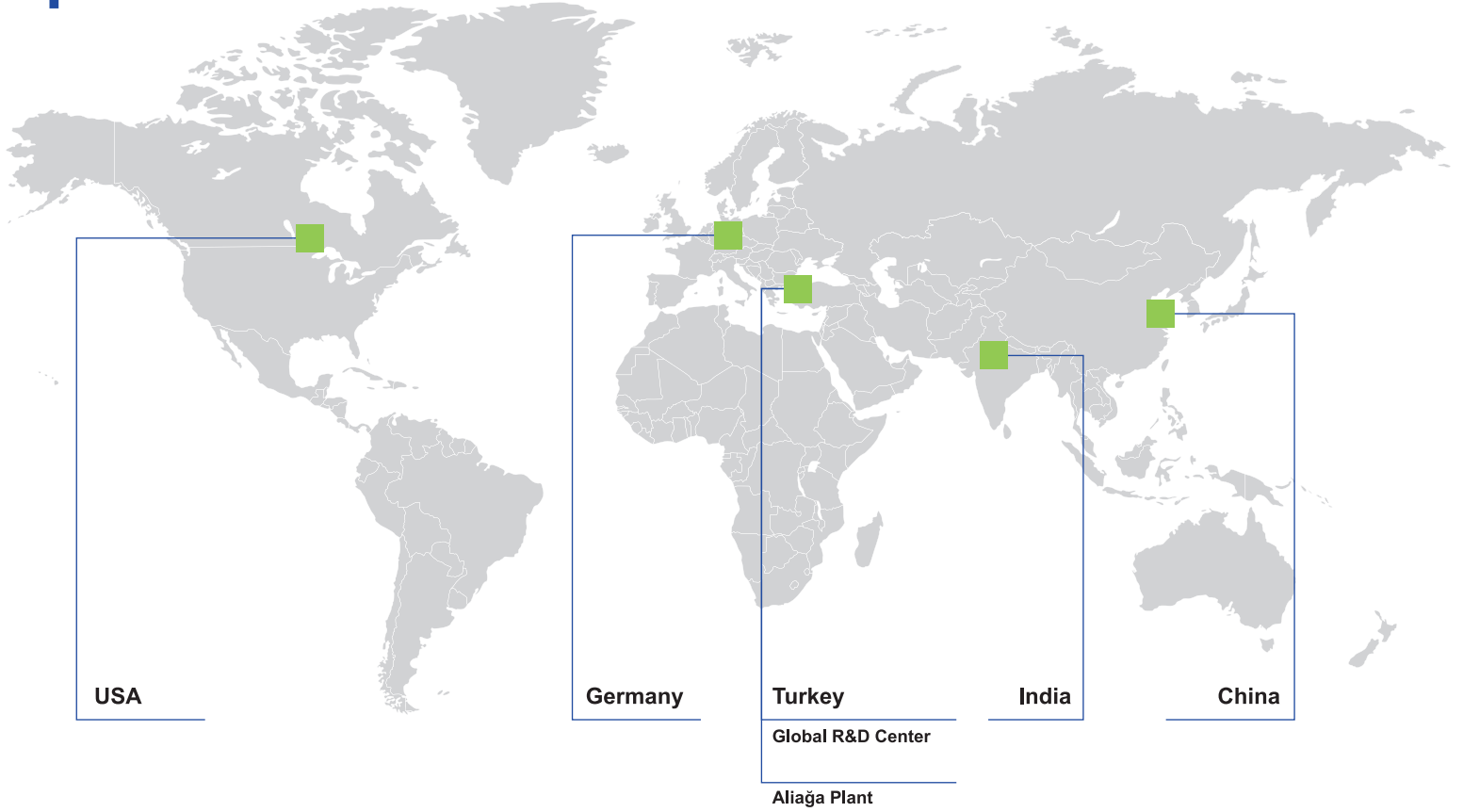
PIR & PCR feedstock and REACH and ROHS available

“ Sustainability in the truest sense of the word is the ability to sustain, survive and uphold the great culture we nurture a culture of giving back to the world what it has given us. ”

Axel Roussis
Commercial Director - Ravago



Manufacturing plants



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