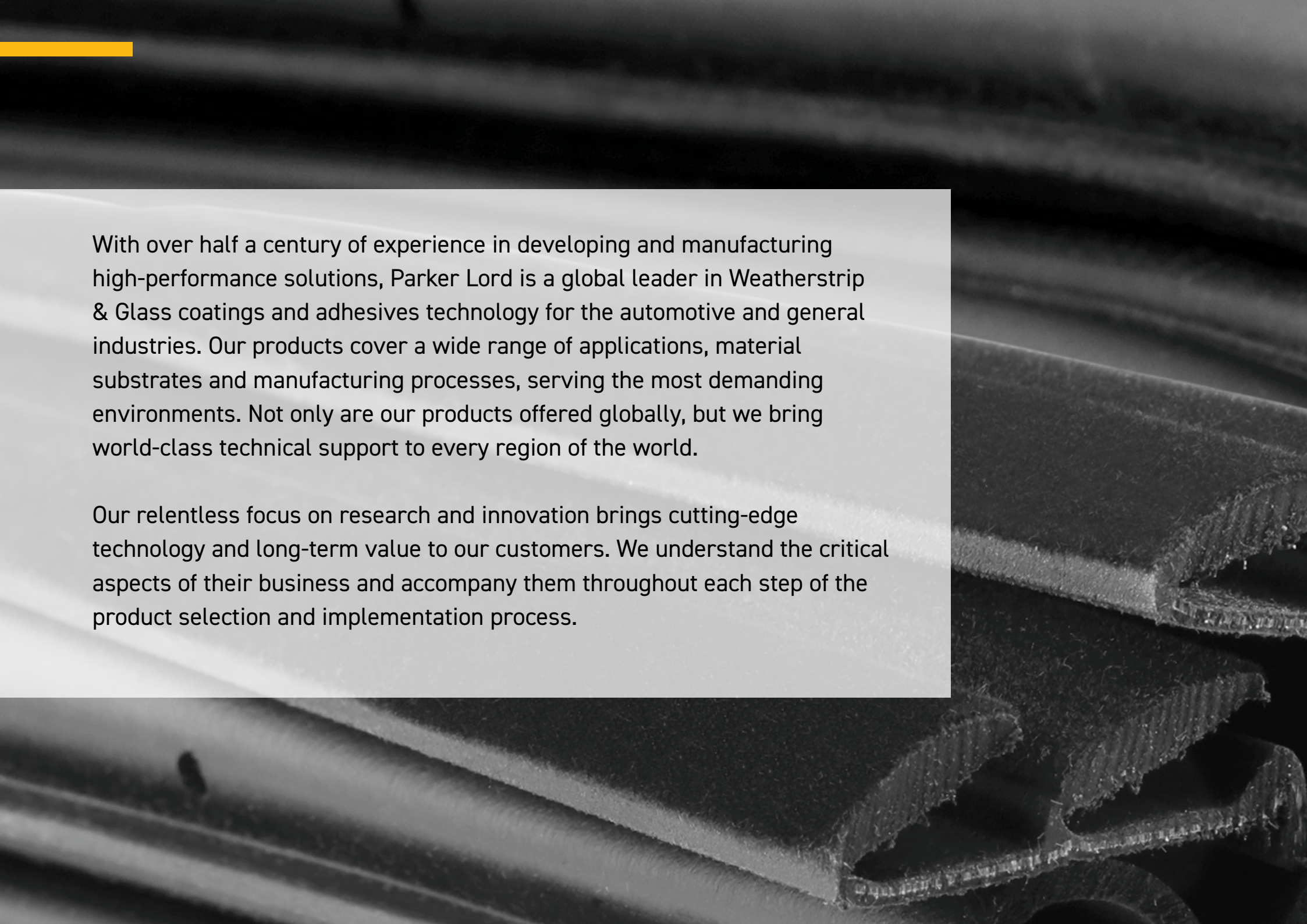




WEATHERSTRIP & GLASS COATINGS AND ADHESIVES

Selector Guide

EMEA (Europe, Middle East, Africa)

A close-up, black and white photograph of automotive weatherstripping. The image shows several layers of material, including a dark, textured rubber or plastic strip with a complex, multi-lobed cross-section. The lighting creates strong highlights and shadows, emphasizing the texture and form of the material. A small, bright orange rectangular bar is visible in the top left corner of the frame.

With over half a century of experience in developing and manufacturing high-performance solutions, Parker Lord is a global leader in Weatherstrip & Glass coatings and adhesives technology for the automotive and general industries. Our products cover a wide range of applications, material substrates and manufacturing processes, serving the most demanding environments. Not only are our products offered globally, but we bring world-class technical support to every region of the world.

Our relentless focus on research and innovation brings cutting-edge technology and long-term value to our customers. We understand the critical aspects of their business and accompany them throughout each step of the product selection and implementation process.

SIPIOL® WEATHERSTRIP COATINGS

Sipiol® weatherstrip coatings significantly improve the performance and lifetime of automotive sealings on passenger and commercial vehicles. We collaborate with our customers and partners to develop coatings that meet the demanding specifications of the automotive industry.

Our coating solutions are designed to offer excellent noise reduction performance and increased passenger comfort. They are particularly suited for applications on electric vehicles. These coatings provide abrasion resistance and are formulated to withstand the harshest environments including extreme temperatures, UV rays, water, ice and cleaning chemicals. Our products are water-based and do not contain any toxic classified substances, meeting the industry's increased demand for sustainable solutions.

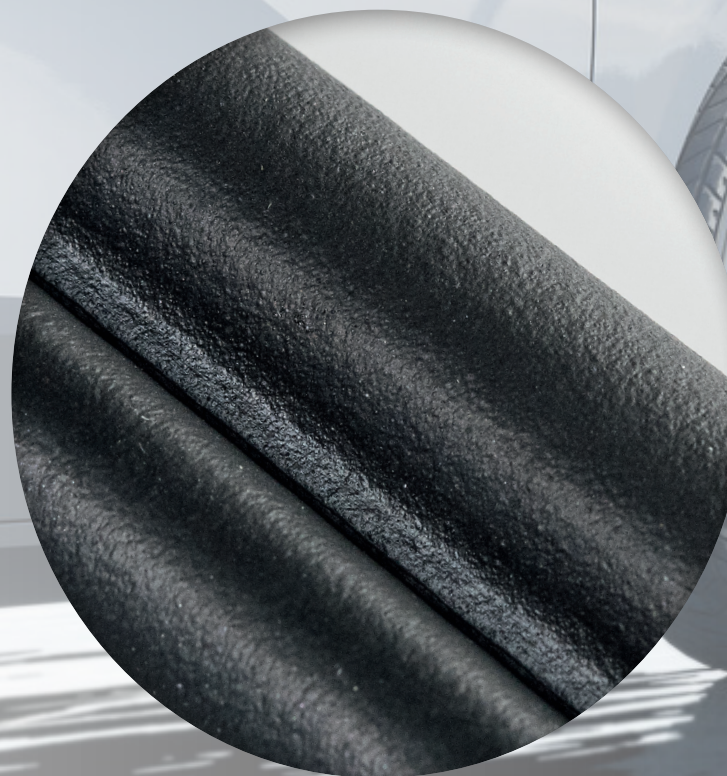
Sipiol weatherstrip coatings are approved by the leading global car manufacturers. See full product listing for primers, cross-linkers, thickeners and setting aides.

Features & Benefits

- Excellent noise reduction
- High abrasion resistance
- High resistance to UV exposure
- One-component and two-component systems
- Water-based systems
- Spray and brush application
- Coatings can be over-painted

Primers

- Solvent- and water-based systems
- Suitable for a variety of elastomers
- Different activation temperatures
- Spray and brush application



| APPLICATION | SMOOTH COATINGS | PARTICULATED COATINGS |
|--|---|--|
| PRIMARY DOOR SEALING, TRUNK-BONNET, HOOD SEALING | <div>WL 1120-21</div> <div>WL 1120-23</div> <div>WL 2010-23</div> | |
| SECONDARY DOOR SEALING, FRAMELESS DOORS, CONVERTIBLES | <div>WL 2010-24</div> | <div>WL 2015-22P</div> <div>WL 1025-21</div> <div>WL 1026-21</div> |
| GLASS RUN CHANNELS | | <div>WL 2015-22P</div> <div>WL 1025-21</div> <div>WL 1026-21</div> |
| SUN ROOFS | <div>WL 2010-24</div> | <div>WL 1026-21</div> <div>WL 1025-21</div> |

1K 2K

See Selector Guide insert for technical data.

FLOCKSIL® & PARFLOCK® FLOCK ADHESIVES

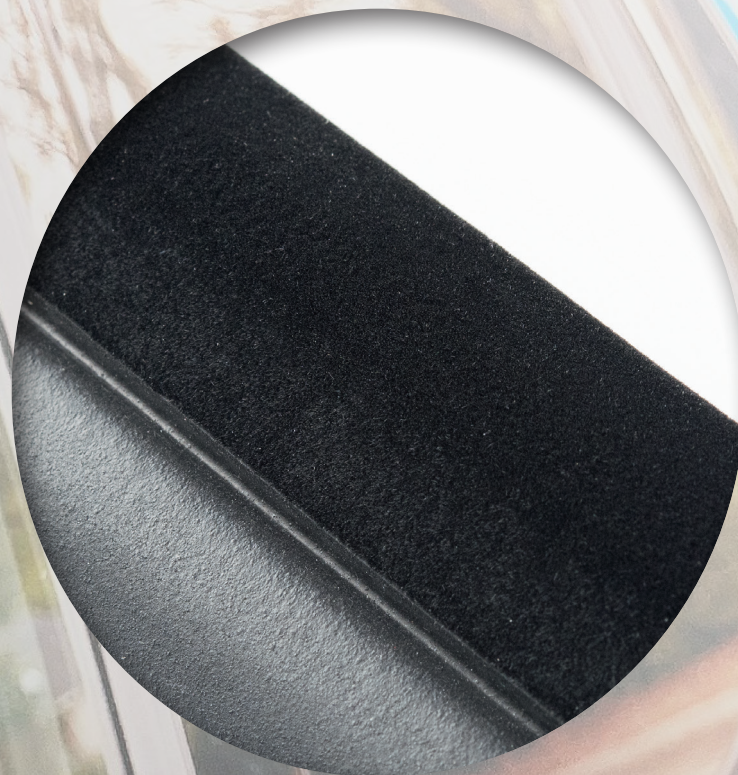
Flocksil® and Parflock® flock adhesives are designed to adhere polyester or nylon flock fibers to a variety of elastomers (including EPDM, NR, CR, SBR) and thermoplastic elastomers (TPE). The flocked elastomer forms an insulating weather seal around windows, protecting passenger cars and commercial vehicles from dust and dirt entering the cabin. Our flock adhesives provide excellent durability, abrasion resistance and adhesion. They protect the rubber sealing from wear, facilitate glass sliding and contribute to noise reduction and increased passenger comfort.

Features & Benefits

- Different solvent compositions and curing times
- Excellent adhesion to a variety of substrates and types of flock
- Process compatibility – can be applied online and offline

Catalysts

- Customizable to specific customer processes
- High efficiency
- DTBL-free versions available



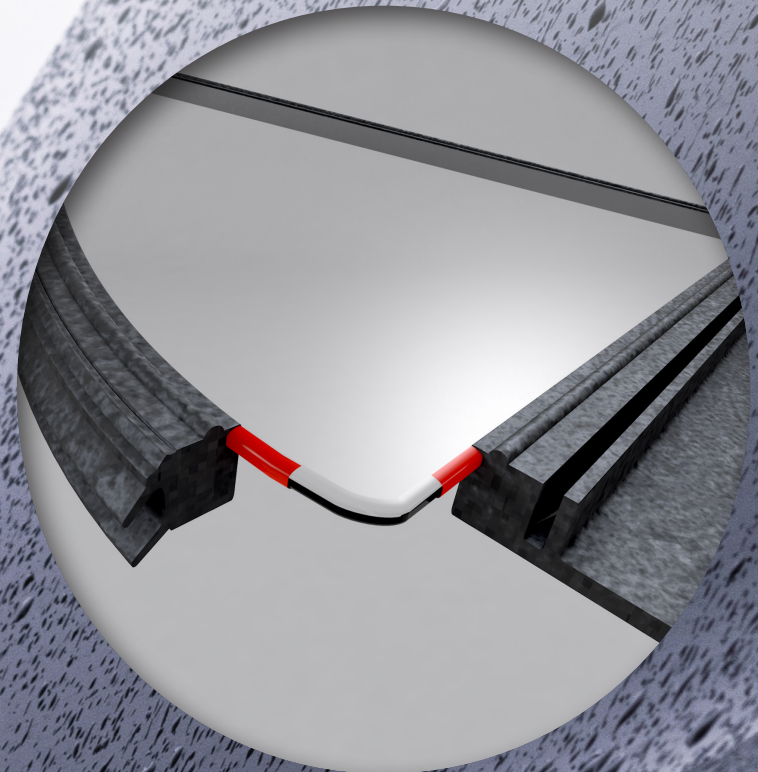
| | SUBSTRATES | |
|-------|---------------------------|-----------------------------|
| COLOR | EPDM, NR, CR, SBR | TPE |
| BROWN | 1501 SF | |
| BLACK | 1503 EA P 11 1506 G 1 | 1503 EA P 11 B 1506 G 1 |

CHEMLOK® GLASS ENCAPSULATION ADHESIVES



Chemlok® glass encapsulation adhesives are designed for the production of automotive windshields, side windows (modular windows) and rear windows. They form a strong bond between the polymer and the window glass during the encapsulation process. We recommend different adhesive systems to bond the glass, depending on the polymer used.

Features & Benefits

- Product solutions for all common polymers (PVC, RIM PU, TPE, EPDM)
- Long history of proven product performance
- Easy application
- Integrated UV tracers
- Selection of available primers



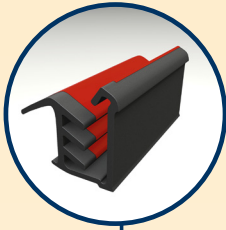
| INJECTED POLYMER | GLASS, METAL, PLASTIC, STEEL, ALUMINUM, FABRIC |
|---------------------|---|
| PVC | <div>489/456</div> |
| TPE | <div>144</div> <div>487 A/B</div> |
| RIM-PU | <div>144</div> |
| EPDM | <div>144</div> <div>Chemosil 511</div> <div>Chemosil NL 411</div> |

 **Primer**
 **Adhesive**

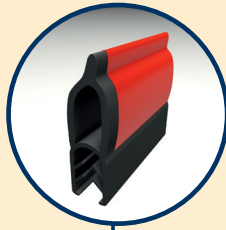
See Selector Guide insert for technical data.

AUTOMOTIVE WEATHERSTRIP APPLICATIONS

Glass Run Channel



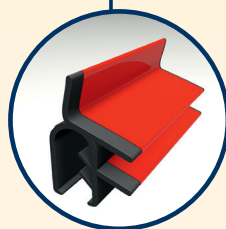
Engine Hood Sealing



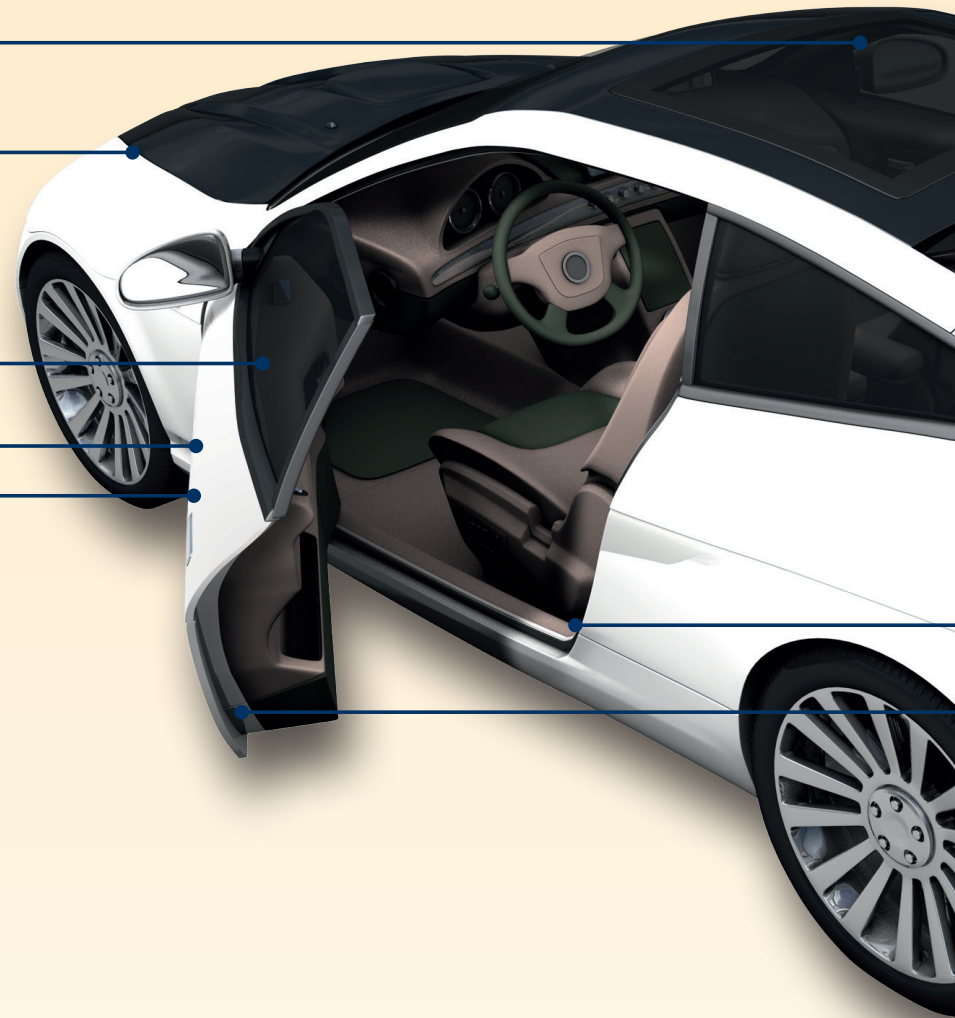
Sun Roof Sealing



Inner Window Guide

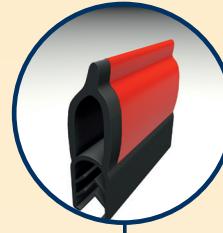


Outer Window Guide



For Convertibles :

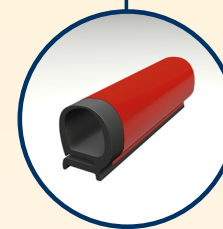
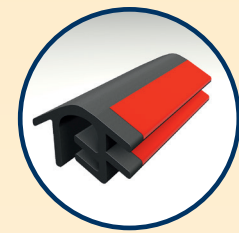
**Trunk
Sealing**



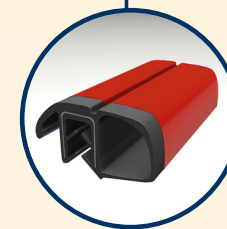
**Windshield
Header Sealing**



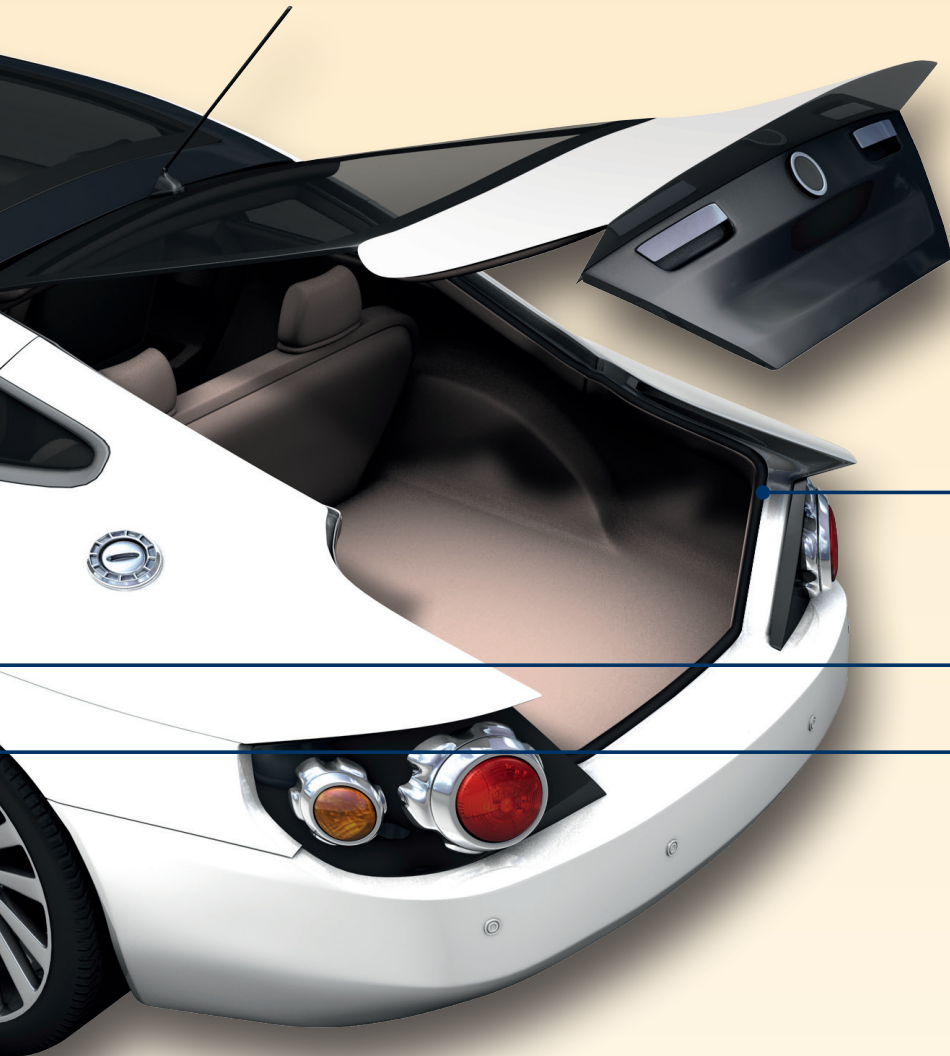
**Top Case
Cover Sealing**



**Primary Door
Sealing**



**Secondary Door
Sealing**



SIPIOL® WEATHERSTRIP COATINGS

| PRODUCT | MAIN APPLICATION | MAIN SUBSTRATE | 1K/2K | BASE | PARTICLE SIZE, µm | COLOR | SOLIDS, % | VISCOSITY mPa·s / cps except as noted | NOISE REDUCTION | ABRASION RESISTANCE | WEATHERING | COEFFICIENT OF FRICTION |
|---------------------|---|----------------------|-----------------|---------|-------------------|--------------------------------|-----------------|---|--------------------|------------------------|------------|----------------------------|
| Sipiol WL 1120-21 | Door sealing, trunk-bonnet, hood sealing | EPDM, Sponge | 1K | Aqueous | No Particles | Black | 30.0-34.5 | 10-100 | ++ | ++ | +++ | 0.3 |
| Sipiol WL 1120-23 | Door sealing, trunk-bonnet, hood sealing, o-rings | EPDM, Sponge | 1K | Aqueous | No Particles | Black | 31-36 | 10-150 | ++ | +++ | +++ | 0.3 |
| Sipiol WL 2010-23 | Door sealing, trunk-bonnet, hood sealing | EPDM, TPE, Sponge | 2K (WV 21 F) | Aqueous | No Particles | Black | 31-36 | 400-600 | ++ | +++ | +++ | 0.26 |
| Sipiol WL 2010-24 | Door sealing, trunk-bonnet, hood sealing | EPDM, TPE, Sponge | 2K (WV 21 F) | Aqueous | No Particles | Black | 31-35 | 50-150 | ++ | +++ | +++ | 0.26 |
| Sipiol WL 2015-22P | Secondary door sealing, frameless doors, convertibles | EPDM, TPE, Sponge | 2K (WV 21 F) | Aqueous | 60 | Black | 34-39 | 150-300 | +++ | +++ | +++ | 0.16 |
| Sipiol WL 1025-21 | Secondary door sealing, frameless doors, convertibles | EPDM, Sponge | 1K | Aqueous | 60 | Black | 36.5-40.5 | 40-100 | +++ | +++ | +++ | 0.16 |
| Sipiol WL 1026-21 | Secondary door sealing, frameless doors, convertibles, sun roof, electric vehicles | EPDM, Sponge | 1K | Aqueous | 30 | Black | 36-40 | 50-150 | +++ | +++ | ++++ | 0.16 |
| Sipiol WL 1620-21 G | Anti-friction coatings for o-rings | EPDM | 1K | Aqueous | No Particles | Matte or Glossy Transparent | 31-36, 36-40 | 10-150, 50-250 | ++ | ++ | N/A | N/A |

+ meets expectations
++ good
+++ very good
++++ excellent





SIPIOL® CROSS-LINKERS / ADHESION PROMOTERS / THICKENERS / SETTING AIDES

| PRODUCT | MAIN APPLICATION | SUBSTRATE | PROPOSED % IN WEIGHT | CURING REQUIREMENT, °C | POT LIFE |
|----------------|--------------------------------|-------------------|----------------------|------------------------|---|
| Sipiol WV 21 F | Curative for 2K rubber coating | EPDM, Rubber, TPE | 3 | 25-200 | 8 hr at 25°C |
| Sipiol WV 23 | Curative for 2K rubber coating | EPDM, Rubber | 1K = 1-3 2K = 8 | 130-200 | No pot life limitation |
| Sipiol HV 3 | Adhesion Promoter | EPDM, Rubber, TPE | 5-10 for all systems | N/A | Infinite pot life; can be used as a primer on TPE |
| Sipiol TH2 | Thickener | EPDM, TPE | 0.2-2 | - | No pot life limitation |
| Sipiol WM 2 | Setting aide | all substrates | - | 25- 180 | No pot life limitation |

PRIMER FOR COATINGS

| PRODUCT | MAIN SUBSTRATE | SOLVENT | COLOR | SOLIDS, % | MAIN APPLICATION |
|-----------------|---------------------|---------|-----------------|-----------|---|
| Chemlok 459X | TPE, TPO, EPDM | Xylene | Amber | 2.7-4.1 | Primer for coatings and flock adhesive |
| Sipiol WP 8556 | TPE, EPDM, NR, HNBR | Water | Opaque Yellow | 7.0- 10.0 | Primer for coatings and flock adhesives |
| Cuvertin X 8536 | TPE, TPO, EPDM | Xylene | Clear to Yellow | 1.8-2.2 | Primer for coatings and flock adhesives |
| Cuvertin X 8568 | TPE, TPO, EPDM | Xylene | Clear to Yellow | 9- 11 | Primer for coatings and flock adhesives |

FLOCKSIL® & PARFLOCK® FLOCK ADHESIVES

| PRODUCT | MAIN APPLICATION | 1K/2K | MAIN SUBSTRATE | SOLVENT | COLOR | SOLIDS, % | VISCOSITY mPa·s / cps except as noted | CURING, MIN | ADHESION | ABRASION | HUMIDITY STABILITY | SPECIFIC PROPERTIES |
|-------------------|---------------------------|-------|------------------------|--|-------|-----------|---|-------------|----------|----------|-----------------------|-------------------------|
| Flocksil 1501 SF | Brush or spray | 1K | EPDM, NR, CR, SBR | MIBK, Ethyl Acetate, Xylene | Brown | 45-49 | 20-100 | 5 @ 180°C | +++ | +++ | +++ | Slow curing |
| Flocksil 1503 EA | Brush or spray | 1K | EPDM, NR, CR, SBR, TPE | Xylene, Ethyl Acetate, Methoxyisopropyl Acetate | Black | 40-44 | 40-100 | 2 @ 180°C | ++++ | ++++ | ++++ | Fast curing |
| Flocksil 1506 G 1 | Brush or spray | 1K | EPDM, NR, CR, SBR, TPE | Xylene, Ethyl Acetate, Methoxyisopropyl Acetate | Black | 40-44 | 40-100 | 2.5 @ 180°C | ++++ | ++++ | ++++ | Low temperature cure |
| Parflock P 11 | Inline, brush or spray | 1K | EPDM | Xylene | Black | 43-49 | 16-22 | 5 @ 180°C | +++ | +++ | +++ | |
| Parflock P 11 B | Inline, brush or spray | 1K | EPDM, TPE | Xylene | Black | 43-49 | 16-22 | 2.5 @ 180°C | +++ | +++ | +++ | |

+ meets expectations
++ good
+++ very good
++++ excellent

CUVERTIN® CATALYSTS

| PRODUCT | MAIN APPLICATION | SUBSTRATE | PROPOSED % IN WEIGHT | POT LIFE |
|---------------|--------------------------------------|-----------|----------------------|----------|
| Cuvertin K 4 | Catalyst for flock adhesive | EPDM, TPE | 1-3 | 7 hr |
| Cuvertin K 8 | Catalyst for flock adhesive | EPDM, TPE | 1-3 | 2 hr |
| Cuvertin K 18 | Catalyst for flock adhesive | EPDM, TPE | 1-3 | 2 hr |
| Cuvertin K 24 | CMR-free catalyst for flock adhesive | EPDM, TPE | 1-4 | 7 hr |



CHEMLOK® AND CHEMOSIL® GLASS ENCAPUSLATION ADHESIVES

| PRODUCT | MAIN APPLICATION | 1K/2K | SOLVENT | COLOR | SOLIDS, % | VISCOSITY, mPa·s / cps |
|-----------------|--|-------|---------------------------------|-------|-------------------------|-------------------------|
| Chemlok 487 A/B | Bond thermoplastic elastomers (TPE) to glass, metal and plastics during injection molding | 2K | A: Xylene B: MIBK | Clear | A: 12.6-15 B: 1-2 | A: 100-350 B: 1-10 |
| Chemlok 489/456 | Bond PVC to glass, metals and plastics during injection molding | 2K | 489: MIBK/Xylene 456: Xylene | Amber | 489: 9-11 456: 49-51 | 489: 80-195 456: <25 |
| Chemosil NL 411 | Bond a variety of elastomer compounds to metal and plastic substrates during the vulcanization | 1K | Xylene | Black | 22-26 | 200-600 |

CHEMLOK®, CHEMOSIL® AND CUVERTIN® PRIMERS

| PRODUCT | MAIN SUBSTRATE | SOLVENT | COLOR | SOLIDS, % | MAIN APPLICATION |
|-----------------|--|-----------------------------|---------------------|-----------|---|
| Chemlok 144 | Glass fabric, steel, aluminum, brass, e-coated metal, architectural and automotive glass, concrete and some plastics | Toluene, n-Butanol, Ethanol | Clear, Straw Yellow | 4.8-6.2 | Injection Molding |
| Chemosil 511 | Glass fabric, architectural and automotive glass | Ethanol | Clear to Yellow | 5-7 | Primer in combination with Chemosil adhesives |
| Cuvertin X 8536 | EPDM, PP, TPE, PE | Xylene | Clear to Yellow | 1.8-2.2 | Primer for coating, flock adhesive and adhesive |

Values stated in this document represent typical values as not all tests are run on each lot of material produced. For formalized product specifications for specific product end uses, contact the Customer Support Center.

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Parker Lord

Engineered Materials Group

111 LORD Drive

Cary, NC 27511-7923

USA

www.parker.com/EPM

Parker Hannifin GmbH

Itterpark 8

40724 Hilden

Germany

phone +49 (0) 2103 252 310

SG1045E OD 08/24 Rev.2

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