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WSC1042

high abrasion silicone weatherstrip coating

Product Description

WSC1042 high abrasion silicone weatherstrip coating is a single component system that thermally cures to form a resilient silicone film. The cured coating can help provide substrate surfaces such as EPDM rubber with lubricating water repellent and easy release characteristics.

WSC1042 high abrasion silicone weatherstrip coating is an excellent candidate to consider to impart high abrasion resistance while keeping good slippery and dark gray matt appearance to coated surfaces, such as automobile primary door seals, window glass run channels and cabriolet seals where a smooth surface is preferred.

Key Features and Typical Benefits

- One component coating
- Extended bath and storage life
- Excellent freeze release characteristics
- Matches EPDM-rubber color
- Low static and dynamic COF
- Excellent abrasion resistance
- Fast heat cure process (typically about 1 minute)
- Excellent adhesion to EPDM
- Long term performance
- Formulated without dibutyl-tin or isocyanate catalysts
- Wide process window

Typical Physical Properties

Component	Base Compound
REF	WSC1042
Color	Black
Solids, %	30
Density (25°C)	1.026
Viscosity, cps (25°C)	150 - 200
Solvent	Water

Typical data are average data and actual values may vary.
Typical data shall not be used as product specifications.

Momentive Performance Materials provides versatile materials as the starting point for our creative approach to ideas that help enable new developments across hundreds of industrial and consumer applications. We are helping customers

solve product, process, and performance problems; our silanes, fluids, elastomers, sealants, resins, adhesives, urethane additives, and other specialty products are delivering innovation in everything from car engines to biomedical devices.

From helping to develop safer tires and keeping electronics cooler, to improving the feel of lipstick and ensuring the reliability of adhesives, our technologies and enabling solutions are at the frontline of innovation.

WSC1042 high abrasion silicone weatherstrip coating

Typical Cured Product Data

Property	WSC1042
Color	Dark grey
Appearance	Matt
Abrasion Resistance	5 - 8,000 crock cycles at 900g load
Friction Coefficient	<0.3 in both static and dynamic
Ice-Freeze Release	Excellent

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Cure Schedule

Complete cure in any specific application is a function of coating thickness, part geometry and the heat transfer characteristics of the substrate to which the coating is applied.

Although the prepared coating system will cure at room temperature, full adhesion and abrasion performance may not be realized. A minimum part temperature of at least 80°C is recommended to achieve the full properties of the coating followed by curing, as outlined below.

The following cure times are typical:

Part Temperature (1)	150°C	100°C	80°C
Cure Time	1 min	5 min	10 min

(1) Not oven set temperature

General Instructions for Use

For optimum coating adhesion and performance, ensure that all surfaces are clean and dry before applying the coating solution. The substrate temperature should be between 80°C and 200°C for on-line application. Minimum 80°C for off-line coatings.

WSC1042 high abrasion silicone weatherstrip coating **solution is recommended to be sprayed**. It is important to apply sufficient material to achieve an initial wet look. This will ensure continuous coverage and good coating adhesion. It is also possible to employ multiple nozzle-heads in tandem, in order to ensure sufficient and uniform coating on the applied surface, during the coating process.

A typical bath life is 24 to 36 hours in an opened container and up to 3 days in a sealed one. Continuous, slow speed agitation of the bath composition is recommended to reduce the possibility of settling of the matting agent and friction modifiers.

The resulting coating thickness will depend upon the method of application and end-use requirements. Minimum coating thickness is 10 microns.

COATING SYSTEM SOLUTION PREPARATION

The coating system is supplied ready to use but can be further diluted for multiple spray applications.

Component	Loading Parts by Weight
WSC1042 - Silicone base	100
Water if required	0 - 200

Note: Further dilution with water may be desired according to the substrate, required coating thickness and application method and needs to be established by trials on the end users production equipment.

The WSC1042 high abrasion silicone weatherstrip coating contains a component that settles. When stored for a long time, it needs to be stirred thoroughly before use. Once thoroughly mixed, the coating is ready to use.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

Customers considering the use of this product should review the latest Material Safety Data Sheet and label for product safety information, handling instructions, personal protective equipment if necessary, and any special storage conditions required. Material Safety Data Sheets are available at www.momentive.com or, upon request, from any Momentive Performance Materials representative. Use of other materials in conjunction with Momentive Performance Materials products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

WSC1042 has a shelf life of 24 months from date of manufacture when stored at room temperature (above 5 and below 25°C) in original unopened containers.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

Emergency Service

Momentive Performance Materials maintains an around-the-clock emergency service for its products. The American Chemistry Council (CHEMTREC) and CareChem24 International also maintain an around-the-clock emergency service for all chemical products:

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