

## **Technical Data Sheet**

IS 5663

# One component RTV Adhesive/Sealant black, spreadable paste

# **Product Description**

Momentive performance materials IS 5663 is a one component, ready to use adhesive/sealant designed for high temperature applications. This product is specially formulated and processed to perform at temperatures up to 250°C continuous operation with relatively little changes in physical properties. On exposure to atmospheric moisture at room temperature, this adhesive/sealant cures to a tough, durable resilience silicone rubber. The product utilizes an acetoxy cure system, releasing small amounts of acetic acid vapours during cure. IS 5663 is a black, paste consistency adhesive/sealant which will only flow with external pressure and may be applied to horizontal, vertical and overhead surfaces in thickness up to 6 mm. IS 5663 has enough body to adhere small objects while cure is taking place.

# **Key Performance Properties**

- non-slump paste
- high temperature resistance
- fast room temperature curing

#### Typical Product Data

Typical Uncured Properties:		IS 5663	
Colour		Black	
Consistency		Soft, spreadable paste	
Tack Free Time	minutes	15	
Application rate 6mm id, 2 bar	g/min	275	

Cured properties:		after 3d RT
Specific gravity	g/cm <sup>3</sup>	1.03
Hardness	Shore A	38
Tensile Strength	MPa	2.5
Modulus 100%	MPa	1.0
Elongation	%	300
Operating temp.	°C	-60 till +250

Heat aged 42 days		@200°C	@250°C
Tensile Strength	MPa	2.3	1.8
Modulus 100%	MPa	0.65	0.68
Elongation	%	410	280





#### **Specifications**

Typical product data values should not be used as specifications. Assistance and specifications are available by contacting Momentive performance materials Technical Service RTV 1 & RTV 2.

## Instructions for Use

#### **Surface Preparation**

IS 5663 adhesive/sealant will bond to many clean surfaces. These surfaces typically include many metals, glass, ceramic and silicone rubber. An evaluation should be made to determine bond strength for each application. For difficult to bond substrates use of a primer is suggested. Momentive performance materials primers such as SS 4004P, SS 4044P, SS 4179 and SS 4155 are recommended for use with this adhesive sealant (complete information and usage instructions for primers and RTV products are contained in separate product data sheets).

For optimum adhesion, surfaces should be thoroughly cleaned with a suitable solvent such as naphtha, methyl ethyl ketone (MEK) or isopropyl alcohol to remove dirt, oil and grease. The surface should be wiped dry before applying the silicone sealant.

#### **Cure Time Cycle**

The cure process begins with the formation of a skin on the exposed surface of the sealant and progresses inwards through the material. At 23° C and 50% relative humidity, the IS 5663 will form a surface skin, which is tack free to the touch in 15 minutes. Within 24 hours a section of minimum 2 mm is fully cured. Since cure times progressively increase with the thickness, sealant depth should be limited in 10 mm. Contact Momentive performance materials for assistance where applications involve depths greater than 10mm. Higher temperatures and humidity will accelerate the cure process. Do not cure the sealant at or above 70° C as bubbles may form in the sealant that may affect the overall physical properties and adhesion.

#### Dispensing

The adhesive/sealant may be dispensed from the caulking cartridge using simple mechanical caulking guns or air-operated guns. Air-operating guns will allow greater control and operating speed. Cartridges are easy to use, can be put into production quickly and require minimal capital investment.

Bulk containers require a larger initial investment in dispensing equipment, but offer economical packaging for volume production. Bulk dispensing systems are air-operated extrusion pumps coupled to hand or automated dispensing units. Pumps, which are specifically designed for one-component condensation cure materials like IS 5663 have Teflon seals, gaskets and Teflon lined hoses to prevent moisture penetration and pump cure problems. Specific details on dispensing systems and manufacturers are available upon request from Momentive performance materials.

### Clean up and removal

For not cured material, solvent systems such as naphtha or methyl ethyl ketone (MEK) are most effective for clean-up. After cure, selected chemical strippers that will remove the silicone rubber are available.

## Handling and Safety

Material Safety Data Sheets are available upon request from Momentive performance materials. Similar information for solvents and other chemicals used with Momentive performance materials products should be obtained from your supplier. When solvents are used, proper safety precautions must be observed.

# Storage and Warranty Period

The warranted shelf life from the material will be indicated by the "use before date" on the associated documents with a minimum of 4 months when stored in the unopened containers at 43° C or less.

#### **Availability**

IS 5663 is available in 310ml cartridges and 20 kg pails



IS 5663

#### PRINCIPAL LOCATIONS - Regional Information

North America	World Headquarters 187 Danbury Road Wilton, CT 06897, USA	T 800.295.2392	F 607.754.7517
Latin America	Rodovia Eng. Constâncio Cintra, Km 78,5 Itatiba, SP – 13255-700, Brazil	T +55.11.4534.9650	F +55.11.4534.9660
Europe, Middle East, Africa and India	D-51368 Leverkusen Germany	T 00.800.4321.1000 T +31.164.293.276	F +31.164.241.750
Pacific	Akasaka Park Building - 5-2-20 Akasaka Minato-ku, Tokyo 107-6112 Japan	T +81.3.5544.3100	F +81.3.5544.3101
CUSTOMER SERVICE	E CENTERS		
North America	Charleston, WV 25314, USA E cs-na.silicones@momentive.com		
	<ul><li>Specialty Fluids</li><li>UA, Silanes, Resins, and Specialties</li></ul>	T 800.523.5862 T 800.334.4674	F 304.746.1654 F 304.746.1623
	<ul> <li>RTV Products-Elastomers</li> <li>Sealants and Adhesives &amp; Construction</li> </ul>	T 800.332.3390 T 877.943.7325	F 304.746.1623 F 304.746.1654
Latin America	E cs-la.silicones@momentive.com  • Argentina & Chile  • Brazil  • Mexico & Central America  • Venezuela, Ecuador, Peru, Colombia, & Caribbean	T +54.11.4862.9544 T +55.11.4534.9650 T +52.55.5899.5135 T +58.212.285.2149	F +54.11.4862.9544 F +55.11.4534.9660 F +52.55.5899.5138 F +58.212.285.2149
Europe, Middle East, Africa and India	E cs-eur.silicones@momentive.com	T 00.800.4321.1000 T +31.164.293.276	F +31.164.241750
Pacific	E cs-ap.silicones@momentive.com     Japan    China    Korea    Singapore	T +81.276.20.6182 T +86.21.5050.4666 (ext. 1523) T +82.2.6201.4600 T +65.6220.7022	
Worldwide Hotline	Worldwide Web www.momentive.com	T 800.295.2392 T +607.786.8131	F +607.786.8309

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