



ROTAL ADHESIVES & CHEMICALS LTD.

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Technical Data Sheet

RMB-2001
RMB-2004
RMB-2007

Revision: June 2013

PRODUCT DESCRIPTION

RMB 2001/2004/2007 is a permanently elastic, high shore adhesive based on a MS-Hybrid polymer. Through its wide spectrum of adherence, being free of solvent, isocyanate and silicone, there are almost no restrictions on the applications for RMB 2001/2004/2007.

RMB 2001/2004/2007 was tested in accordance with DIN EN ISO 846 and fulfilled the Editions of the VDI 6022. It is therefore suitable for use in air conditioned installations.

RMB 2001/2004/2007 provides the following product characteristics:

Chemical Type	Silyl-Terminated Polymer
Appearance (uncured)	Paste
Components	One part - requires no mixing
Viscosity	Thixotropic
Cure	Atmospheric moisture
Application	Sealing and Bonding
Color	White Gray Black
Approvals	DIN EN ISO 846, VDI 6022 *

* Conformance with VDI 6022

In accordance with VDI 6022, air conditioning plants should provide physiologically beneficial indoor climate conditions and ensure that the indoor air is of flawless quality. The VDI standard further stipulates that health risks and a decreased sense of well-being caused by air contaminated by micro-organisms must be avoided.

Part no.	Color
RMB 2001	Gray
RMB 2004	White
RMB 2007	Black

RMB 2001/2004/2007 is sag resistant and has a high initial tack. It is non-corrosive, free of solvents, isocyanates, silicones, PVC, and is odorless. RMB 2001/2004/2007 demonstrates good adhesion to a wide variety of substrates and is compatible with suitable paint systems. It also demonstrates good UV resistance and can therefore be used for interior and exterior applications.

APPLICATIONS:

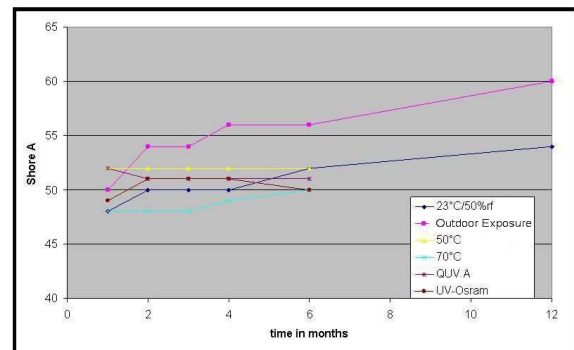
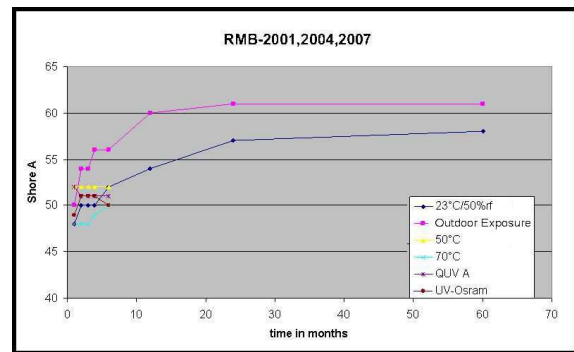
Assembly and sealing in manufacturing industry (coach building, metal assembly...).

Building industry applications include: skirting boards, profiles, insulation panels, decorative fixing... Assembly of natural stone and marble.

Sealing in clean-room applications in hospitals, laboratories and other critical surroundings.

Excellent adhesion on aluminium, galvanised steel, copper, brass, stainless steel, zinc glass, PVC, epoxy, polyester, melamine, lacquered wood and most common construction materials (concrete, plaster, ceramic tiles)...

The product is neutral, so it can be used on corrosion sensitive materials and for sealing, bonding and securing components of electronic equipment to boards, including automotive and other electronic industry applications.



TYPICAL PROPERTIES OF UNCURED MATERIALS

Density, ISO 2811-1 @ 22 °C, g/ml 1.55
 Flash Point - See MSDS

WARNING: THIS MATERIAL IS SOLD FOR INDUSTRIAL USE ONLY

NOT FOR PRODUCT SPECIFICATIONS THE TECHNICAL DATA CONTAINED HEREIN ARE INTENDED AS REFERENCE ONLY.
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TYPICAL CURING PERFORMANCE

Under normal conditions, the atmospheric moisture initiates the curing process. The product develops functional strength in 24 hours and fully cures in 7 days.

Volume change <10%

TYPICAL PROPERTIES OF CURED MATERIAL

Cured for 3 days @ 22 °C / 50±5 % RH

Physical Properties:

Elongation, at break, ISO 527-3, % 300
 Tensile Strength, ISO 527-3 N/mm² 2.1
 Glass Transition Temperature (Tg)
 , ISO 11357-2, °C -55

Non-Volatile Content, ASTM D 2369, % 98
 Shore Hardness, ISO 868, Durometer A 60±3

Modulus @ 100% (DIN 53504): 1,3 N/mm²
 Elastic recovery (DIN 52455): >200%
 Temperature resistance continuous -40°C/+90°C

(Tests at +200°C 10 minutes or +180°C, 30 minutes showed no destruction of the polymer)

Electrical Properties:

Dielectric Constant , IEC 60250:

1kHz 4.4
 100 kHz 4.30
 1 MHz 4.25
 Surface Resistivity, IEC 60093, Ω 1.0×10¹⁴
 Volume Resistivity, IEC 60093, Ω·cm 1×10¹²

TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

Cured for 21 days @ 22 °C

Lap Shear Strength, ISO 4587:

Steel (grit blasted) N/mm² 2.1
 Stainless Steel N/mm² 2.0
 Galvanized Steel N/mm² 1.7
 Aluminum N/mm² 1.8

Zinc dichromate N/mm² 1.4
 Wood (Pine) N/mm² 0.8
 Glass N/mm² 2.0
 Fiberglass N/mm² 1.0
 Buna-N N/mm² 0.2

Block Shear Strength, ISO 13445:

Polycarbonate N/mm² 0.7
 PVC N/mm² 0.8
 ABS N/mm² 1.2
 Nylon N/mm² 3.0

"T" Peel Strength, ISO 11339:

Aluminum N/mm 0.5

Impact Strength, ISO 9653, J:

Aluminum 2.8
 Volume resistivity according to DIN 53482 Ω x cm 10¹⁵

Di-electric strength Kv/mm ASTM-D-149 17

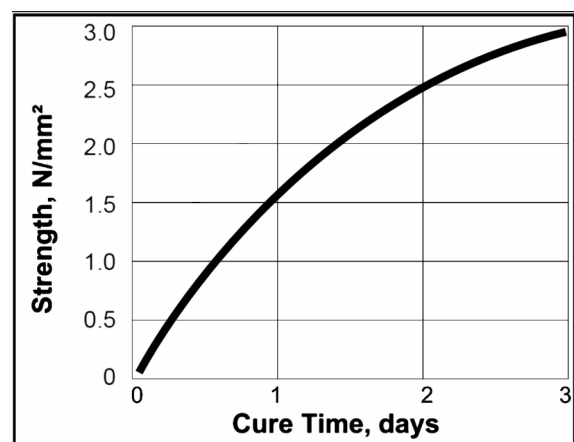
Skin Over Time

Skin over time is the time the surface of the adhesive forms a skin upon exposure to atmospheric moisture at 25 ± 2 °C, 50 ± 5% RH.

Skin Over Time, minutes 20

Cure Speed vs. Time

The graph below shows the shear strength developed over time at 22 °C / 50 % RH on mild steel (grit blasted) and tested according to ISO 4587.



Depth of Cure

The depth of cure depends on temperature and humidity. Depth of cure was determined by filling a 12 mm deep cup and removing the cured film of material. The cured section of product is measured to determine depth of cure.

Depth of Cure

Depth of cure, mm/d 3

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials

For safe handling information on this product, consult the Material Safety Data Sheet (MSDS).

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Directions for use

1. For best performance bond surfaces should be clean and free from grease.
2. Moisture curing begins immediately after the product is exposed to the atmosphere, therefore parts to be assembled should be mated within a few minutes after the product is dispensed.
3. The bond should be allowed to cure (e.g. seven days), before subjecting to heavy service loads.
4. Excess material can be easily wiped away with non-polar solvents.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 28 °C can adversely affect product properties.

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