TECHNICAL DATA SHEET

ALPA-LSR 120203
- Preliminary datasheet! -

Description

This is a 2-part addition cure silicone elastomer system for Liquid Injection Moulding (LSR). After mixing parts 'A' and 'B' in the correct proportions, the system will cure at elevated temperatures, usually in the range of 100 °C to 180 °C. The cycle time depends mainly on the temperature and the shape of the mould. The cured rubber exhibits excellent physical and electrical properties.

Key Features

- selfadhesive to aluminium
- low compression set

Application

ALPA-LSR 120203 is particularly suited for the production of gaskets & sealings. Self adhesive to metals without the use of primer.

In order to achieve the described properties, the vulcanization time, if a hot-air oven is used, should be at least 45 minutes at 175 °C. If a heating press is used, at least 5 minutes at 175 °C are required. In addition a postcure 4 h at 200 °C is recommended.

Use and Cure Information

IMPORTANT:

The 'A' part of product

contains the platinum catalyst; great care should be taken when using automatic dispensing equipment. Please ensure that it is not contaminated by residual hydride containing rubber in the dispensing equipment, as curing will result. If in doubt, it's advised to thoroughly purge the equipment with a suitable hydrocarbon solvent or silicone fluid.

Mixing

LSR silicone elastomers usually have a very high viscosity, which is why automatic mixing and dosing equipment is recommended for mixing!

Property	Test Method	Value
Uncured Product		
Appearance		**light blue**
Color A		**translucent**
Color B		**light blue**
Cure Type		**Addition**
De-mould Time / Full Cure at 23°C/73°F		**> 48 hrs**
Density A	DIN 53 479	**1.1**
Density B	DIN 53 479	**1.08**
Mix Ratio By Weight		**1:1**
Viscosity A	Brookfield HBTD	**350000 cP**
Viscosity B	Brookfield HBTD	**300000 cP**
Viscosity Mixed	Brookfield HBTD	**325000 cP**
Cured Product		
Color		**Light blue**
Compression Set %	BS ISO 815-1	**< 25 %**
Elongation at Break	DIN 53 504, S 3 A	**600 %**
Hardness Shore A	DIN 53 505	**23,5**
Linear Shrinkage (%)		**< 0.1 %**
Tear Resistance (N/mm)	ASTM D 624, Die B	**15 N/mm / 86 ppi**
Tensile Strength	DIN 53 504, S 3 A	**6 N/mm2 / 870 psi**
Storage		
Max Storage Temperature		**30 °C °C / 86 °F**
Min Storage Temperature		**0°C °C / 32 °F**
Shelf Life		**12 mths**

Inhibition of Cure

Great care must be taken when handling and mixing all addition cured silicone elastomer systems, ensuring that all the mixing tools (vessels, tubes and mixer) are clean and constructed in materials which do not interfere with the curing mechanism. The cure of the rubber can be inhibited by the presence of compounds of nitrogen, sulphur, phosphorus and arsenic; organotin catalysts and PVC stabilizers; epoxy resin catalysts and even contact with materials containing certain of these substances e.g. moulding clays, sulphur vulcanised rubbers, condensation cure silicone rubbers, onion and garlic.

Curing Conditions

LSR silicone elastomers do crosslink extremely slowly at room temperature. Temperatures greater than 100 °C are usually required to crosslink the materials in short time.

Health & Safety

Safety Data Sheets available on request.

Packaging

CHT Moulding Rubbers are available in a variety packaging including bulk containers. Please contact our sales department for more information.

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