TECHNICAL DATA SHEET

ALPA-LSR 160201
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

- Product is suitable for Liquid Injection Moulding process
- Curing speed can be accelerated by temperature
- Very good mechanical properties
- Easy demoulding

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!

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.

Property	Test Method	Value
Uncured Product		
Color A		**translucent**
Color B		**translucent**
Cure Type		**addition**
De-mould Time / Full Cure at 23°C/73°F		**> 48 hrs**
Density A	DIN 53 479	**1.13**
Density B	DIN 53 479	**1.13**
Mix Ratio By Weight		**1:1**
Viscosity A	Brookfield HBTD	**600.000 cP**
Viscosity B	Brookfield HBTD	**600.000 cP**
Viscosity Mixed	Brookfield HBTD	**600.000 cP**
Cured Product		
Color		**translucent**
Compression Set %	BS ISO 815-1	**- %**
Density	DIN 53479	**1.13 g/cm3**
Elongation at Break	DIN 53 504, S 3 A	**400 %**
Hardness Shore A	DIN 53 505	**60**
Linear Shrinkage (%)		**< 0.1 %**
Max Working Temp		**200 °C / 392 °F**
Min Working Temp		**-40 °C / -40 °F**
Tear Resistance (N/mm)	ASTM D 624, Die B	**30 N/mm / 173 ppi**
Tensile Strength	DIN 53 504, S 3 A	**10 N/mm2 / 1450 psi**
Storage		
Max Storage Temperature		**30 °C / 86 °F**
Shelf Life		**12 mths**

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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