# **TECHNICAL DATA SHEET**



## ALPA-LSR 140201 Preliminary datasheet

| Description  | Property                                | Test Method                     | Value                      |
|--|---|---------------------------------|----------------------------|
| This is a 2-part addition cure silicone elastomer system for Liquid<br>Injection Moulding (LSR). After mixing parts 'A' and 'B' in the<br>correct proportions, the system will cure at elevated<br>temperatures, usually in the range of 100 °C to 180 °C. The cycle | Uncured Product<br>Color A<br>Color B   |                                 | translucent<br>translucent |
| time depends mainly on the temperature and the shape of the  | Cure Type                               |                                 | Addition                   |
| mould. The cured rubber exhibits excellent physical and electrical properties.   | De-mould Time / Full Cure at 23°C/73°F  |                                 | > 48 hrs                   |
| Key Features   | Density A                               | DIN 53 479                      | 1.12                       |
| Product is suitable for Liquid Injection Moulding process  | Density B                               | DIN 53 479                      | 1.12                       |
| <ul> <li>Curing speed can be accelerated by temperature</li> <li>Very good mechanical properties</li> </ul>  | Mix Ratio By Weight                     |                                 | 1:1                        |
| <ul> <li>Easy demoulding</li> </ul>  | Viscosity A                             | Brookfield HBTD                 | 500.000 cP                 |
| Use and Cure Information   | Viscosity B                             | Brookfield HBTD                 | 500.000 cP                 |
| IMPORTANT:   | Viscosity Mixed                         | Brookfield HBTD                 | 500.000 cP                 |
| The 'A' part of product contains the platinum catalyst; great care should be taken when  | Cured Product                           |                                 | <b>_</b>                   |
| using automatic dispensing equipment. Please ensure that it is   | Color                                   |                                 | Translucent                |
| not contaminated by residual hydride containing rubber in the  | Compression Set %                       | BS ISO 815-1<br>DIN 53479       | 10 %                       |
| dispensing equipment, as curing will result. If in doubt, it's<br>advised to thoroughly purge the equipment with a suitable  | Density                                 | DIN 53479<br>DIN 53 504, S 3 A  | 1.12 g/cm3<br>600 %        |
| hydrocarbon solvent or silicone fluid.   | Elongation at Break<br>Hardness Shore A | DIN 53 504, 5 3 A<br>DIN 53 505 | 40                         |
| Mixing   | Linear Shrinkage (%)                    | DIN 33 303                      | < 0.1 %                    |
| LSR silicone elastomers usually have a very high viscosity, which  | Max Working Temp                        |                                 | 200 °C / 392 °F            |
| is why automatic mixing and dosing equipment is recommended  | Min Working Temp                        |                                 | -40 °C / -40 °F            |
| for mixing!  | 5 1                                     | ASTM D 624, Die                 |                            |
| Inhibition of Cure   | Tear Resistance (N/mm)                  | В                               | 27 N/mm / 154 ppi          |
| Great care must be taken when handling and mixing all addition<br>cured silicone elastomer systems, ensuring that all the mixing<br>tools (vessels, tubes and mixer) are clean and constructed in  | Tensile Strength                        | DIN 53 504, S 3 A               | 9.5 N/mm2 / 1378<br>psi    |
| materials which do not interfere with the curing mechanism. The cure of the rubber can be inhibited by the presence of compounds   | Storage                                 |                                 |                            |
| of nitrogen, sulphur, phosphorus and arsenic; organotin catalysts  | Max Storage Temperature                 |                                 | 30 °C / 86 °F              |
| and PVC stabilizers; epoxy resin catalysts and even contact with   | Shelf Life                              |                                 | 12 mths                    |
| materials containing certain of these substances e.g. moulding<br>clavs, sulphur vulcanised rubbers, condensation cure silicone rubbers, onion and garlic  |   |                                 |                            |

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### **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.

| Revision Date | 12 Feb 2024 |
|---------------|-------------|
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