# Technical Data Sheet

## Elastolit® K 4900/LT



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### Application

Easily separating two-component system having excellent good flow properties for the production of fast demoudable, thin walled compact polyurethane mouldings. After addition of ammoniumpolyphosphate (e.g. Exolit 422) the mouldings according to UL 94 V-0 and 5 VA. The system is listed as Elastolit K 4900/LT FR under File no. E 123445 at Underwriters Laboratories Inc.

### Chemical Characteristics

**Polyol-Component:** Preparation based on: polyol, catalyst, additives
**Iso-Component:** Preparation based on: Isocyanic acid, polymethylenepolyphenylene ester (P-MDI)
= Iso 118/4
**C-Component:** Ammoniumpolyphosphat

### Supply

The type of supply for the components will be decided after consultation with our Sales Office

### Storage, Preparation

Polyurethane components are moisture sensitive. Therefore they must be stored at all times in sealed , closed containers.The A-component (Polyol) must be homogenised by basic stirring before processing.More detailed information should be obtained from the separate data sheet entitled "Information for in-coming material control, storage, material preparation and waste disposal" and from the component data.

### Possible Hazards

The B-component (Isocyanate ) irritates the eyes, respiratory organs and the skin. Sensitisation is possible through inhalation and skin contact. MDI is harmful by inhalation. On processing these, take note of the necessary precautionary measures described in the Material Safety Data Sheets ( MSDSs ). This applies also for the possible dangers in using the A-component (Polyol) as well as any other components.See also our separate information sheet " Safety- and Precautionary Measures for the Processing of Polyurethane Systems." Use our Training Programme " Safe Handling of Isocyanate."

### Waste Disposal

More detailed information is provided in our country -specific pamphlet

### Consumer articles, medical products

There are national and international laws and regulations to consider if it is intended to produce consumer articles (e.g. articles that necessitate food or skin contact, toys etc.) or medical objects out of BASF products. Where these do not exist, the current legal requirements of the European Union for consumer articles as well as medical products should be sufficient. Consultation with our Sales Office and our Ecology and Product Safety Department is strongly recommended.

## Component Data

| Characteristics | Unit | Polyol-Comp. | Iso-Comp. | Method |
|---|---|---|---|---|
| Density (25°C) | g/cm³ | 1.05 | 1.23 | G 133-08 |
| Viscosity (25°C) | mPa·s | 1850 | 275 | G 133-07 |
| Shelf-life | months | 4 | 3 | |

## Typical Processing Data

### Cup Test

| Characteristics | Unit | Value | Method |
|---|---|---|---|
| Temperature | °C | 20 | |
| Weight | g | A = 100 B = 128 | |
| Start time | s | 14 | G 132-01 |
| Rise time | s | 25 | |
| Free rise density | kg/m³ | 700 | |

### Machine Processing

| Characteristics | Unit | Value | Method |
|---|---|---|---|
| Mixing ratio | pbw | A = 100 B = 128 | |
| Material temperature | °C | 28 - 35 | |
| Cream time (high pressure machine) | s | 8 | |
| Mould temperature | °C | 55 - 65 | |
| Demoulding time | s | 90 | |
| Moulding density | kg/m³ | 1100 | |

When processing the polyolcomponent we recommend 20 – 30% by volume aeration.

**Processing formulation for Elastolit K 4900/LT FR**

100 pbw Elastolit K 4900/LT
15 pbw Ammoniumpolyphosphate
128 pbw Iso 118/4

## Typical Physical Properties

| Characteristics | Unit | Measured value | | Method |
|---|---|---|---|---|
| Fire retardent | | no | yes | |
| Mixing ratio | A + C : B | 100 : 128 | 100 : 112 | |
| Density | kg/m³ | 1050 | 1090 | DIN EN ISO 845 |
| Hardness | Shore D | 78 | 78 | DIN ISO 7619-1 |
| Flexural strength (Flexural tension 3,5 %) | MPa | 59 | 60 | DIN EN ISO 178 |
| Flexural modulus | MPa | 1850 | 1990 | |
| Tensile strength | MPa | 53 | 46 | DIN EN ISO 527-2 |
| Elongation at break | % | 17 | 17 | |
| Tensile modulus | MPa | 2100 | 2000 | |
| Impact strength | kJ/m² | 55 | 35 | DIN EN ISO 179 |
| Heat deflection temperature, Method B | °C | 101 | 101 | DIN 53461 |
| Shrinkage<br>d = 4 mm<br>d = 6 mm<br>d = 10 mm | % | <br>0.7<br>0,8<br>0,9 | <br>0.6<br>0,7<br>0,8 | |

| Electrical properties with fire retardant at a density of 1100 kg/ m³ | | | |
|---|---|---|---|
| Comparative Tracking Resistivity CTI | | 600-0 | IEC 112 |
| Specific Volume Resistivity | Ohm* cm | $6*10^{15}$ | IEC 93 |
| Surface resistance | Ohm | $5*10^{16}$ | |
| Dielectric strength | kV/mm | 43 | IEC 243-1 |

The mechanical properties were measured an mafchine cast test plates (thickness: 4 mm). The test plates were cast in a heated aluminiummould (Mould temperature: 60°C, Demoulding time: 90 sec.).




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