

APPLICATIONS

Production of parts having mechanical properties close to those of thermoplastics such as polypropylene or polyethylene, in prototype and small and medium scale series.
Car industry: interior trim, element of instrument panels, bumpers, spoilers, etc.
Electronics, Furniture, household appliances: boxing, casings, etc.

PROPERTIES

- Good temperature resistance
- Good impact resistance
- Very easy processing
- Good ability for bonding and painting

| PHYSICAL PROPERTIES | | | | |
|-----------------------------------------------|-------------|-------------------|-----------------------|-------------|
| Composition | | POLYOL RIM 872 | ISOCYANATE RIM 900 | MIXING |
| Mix ratio by weight | | 100 | 90 | |
| Mix ratio by volume @ 25 °C | | 100 | 78 | |
| Aspect | | liquid | liquid | liquid |
| Colour | | black | dark amber | black |
| Brookfield LVT viscosity@ 25 °C (mPa.s) | - | 1,500 – 2,500 | 1,100 – 1,900 | - |
| Specific gravity @25 °C | ISO 1675-75 | 1.03 – 1.07 | 1.20 – 1.24 | - |
| Specific gravity @ 25 °C of the cured product | ISO 2781-88 | - | - | 1.10 – 1.14 |
| Pot life @ 25 °C on 100g (s) | - | | | 60 - 80 |

PROCESSING CONDITIONS

Used with a 2-component low pressure injection machine fitted out preferably with an agitator in the polyol tank (part A). Before each use of polyol check there is no crystallization (see Storage §) and plasticate until a homogenous color is obtained. The two parts (polyol and isocyanate) must be mixed at a temperature higher than 18 °C according to the mix ratio indicated on the technical data sheet.

Before casting check the 851 demoulding agent is applied to moulds free of any trace of moisture (demoulding agent specified for a low pressure injection to 80 °C). For further information please see the AXSON's technical data sheet about RELEASE AGENTS.

The optimum properties of the material are obtained after a 4 hours post-curing at 80 °C. **Caution** : according the part geometry, it may be necessary to use a conformer when post-curing. A quicker demoulding is made possible by the use of a tool heated to a temperature close to 40 °C.

REMARKS

The ADEKIT A 310 NF adhesive of the Axson's range is particularly recommended for bonding this resin to itself or with different materials such as thermoplastics, steel, etc. To repair surfaces to be painted or bonded degrease parts with an alcohol or acetone or some liquid soap. A polyurethane paint is advised.

| MECHANICAL PROPERTIES @ 23 °C (1) | | | |
|----------------------------------------------------------------------|----------------|-------------------|-------|
| Flexural modulus of elasticity (E _f) | ISO 178-93 | MPa | 1,400 |
| Tensile strength | ISO 527-66 | MPa | 40 |
| Elongation at break | ISO 527-66 | % | 14 |
| Charpy impact resistance (a _{cU}) (Unnotched specimens) | ISO 179/1eU-93 | kJ/m ² | 40 |
| Hardness | ISO 868-85 | Shore D1 | 78 |

| THERMAL AND SPECIFIC PROPERTIES (1) | | | |
|------------------------------------------------------------------------------------|----------------|----------------------------------|----------------|
| Temperature of se | - | °C | -40 / +90 |
| Glass transition temperature | T.M.A.-Mettler | °C | 100 |
| Coefficient of thermal expansion (C _L TE) [0, 100]°C | T.M.A.-Mettler | 10 ⁻⁶ K ⁻¹ | 130 |
| Demoulding time @ 23 °C | - | min. | 15 |
| Epaisseur maximale de coulée | - | mm | 10 |
| Linear shrinkage on parts @ 23 °C : - thickness 2 à 3mm - thickness 4 à 5 mm | - | mm/m | 4 - 6 6 - 8 |

(1) : Average values obtained on standardized specimens, casting in moulds @ 23 °C / Hardening 4 hours @ 80 °C.

CONSERVATION - STORAGE

Shelf life is 12 months in a dry place and in original unopened containers at a temperature between 15 and 25 °C. Any open can must be tightly closed under dry nitrogen blanket. The polyol, at low temperature may crystallize (evidence: non homogeneous liquid part). It is advised to heat the product at 40 °C until a homogeneous liquid product is obtained.

PRECAUTIONS

Normal health and safety precautions should be observed when handling these products:

- . ensure good ventilation
- . wear gloves and safety glasses

For further information, please consult the product safety data sheet.

CONDITIONNEMENT

POLYOL
1 x 20 kg

ISOCYANATE
1 x 18 kg

GUARANTEE

The information contained in this technical data sheet result from research and tests conducted in our Laboratories under precise conditions. It is the responsibility of the user to determine the suitability of AXSON products, under their own conditions before commencing with the proposed application. AXSON guarantee the conformity of their products with their specifications but cannot guarantee the compatibility of a product with any particular application. AXSON disclaim all responsibility for damage from any incident which results from the use of these products. The responsibility of AXSON is strictly limited to reimbursement or replacement of products which do not comply with the published specifications.