BJB Polyurethane TC-8772 A/B

Polyurethane Thermoset Elastomer

BJB Enterprises, Inc.

Message:

TC-8772 A/B is a two-component urethane casting compound that is specifically formulated for high abrasion and impact resistance. It is recommended for use casting highly wear-resistant parts and linings. This product is safe and easy-to-handle. TC-8772 A/B is relatively insensitive to typical environmental moisture and will make excellent void-free parts without the problems that some conventional urethane systems exhibit. Because of this product's exceptional toughness and abrasion resistance, castings made with TC-8772 A/B are particularly suitable for mining and mineral process industries.

Product Highlights: Exceptional abrasion and impact resistance Contains no MDI, MDA, OR MOCA Easy to handle

| General Information | | | | |
|-------------------------------|------------------------------|-------|-------------|--|
| Features | Ultra-high impact resistance | | | |
| | Ultra high toughness | | | |
| | Good wear resistance | | | |
| | | | | |
| Uses | Abrasion Resistant Liners | | | |
| | Gear | | | |
| | Mining application | | | |
| | | | | |
| Appearance | Clear/transparent | | | |
| | Transparent amber | | | |
| | | | | |
| Forms | Liquid | | | |
| Processing Method | Casting | | | |
| Physical | Nominal Value | Unit | Test Method | |
| Specific Gravity | | | | |
| 1 | 1.12 | g/cm³ | | |
| ² | 1.17 | g/cm³ | | |
| | 1.14 | g/cm³ | ASTM D792 | |
| Shrinkage | 0.50 | % | ASTM D2566 | |
| Gel Time | 12.0 - 15.0 | min | | |
| Work Time ³ (25°C) | 8.0 - 10.0 | min | | |
| Cure Time (25°C) | 5.0 - 7.0 | day | | |
| Hardness | Nominal Value | Unit | Test Method | |
| Durometer Hardness (Shore D) | 65 - 75 | | ASTM D2240 | |
| Mechanical | Nominal Value | Unit | Test Method | |
| Tensile Modulus | 372 | МРа | ASTM D638 | |
| Tensile Strength | 34.6 | МРа | ASTM D638 | |
| Tensile Elongation (Break) | 480 | % | ASTM D638 | |

| Flexural Modulus | 372 | MPa | ASTM D790 |
|-------------------------|--|------|-------------|
| Flexural Strength | 14.3 | MPa | ASTM D790 |
| Elastomers | Nominal Value | Unit | Test Method |
| Tear Strength | 133 | kN/m | ASTM D624 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact | > 470 | J/m | ASTM D256 |
| Thermoset | Nominal Value | Unit | Test Method |
| Thermoset Components | | | |
| Component a | Mixing ratio by weight: 100, mixing ratio by capacity: 100 | | |
| Component B | Mixing ratio by weight: 40, mixing ratio by capacity: 38 | | |
| Shelf Life (25°C) | 26 | wk | |
| Thermoset Mix Viscosity | | | Brookfield |
| 25°C ⁴ | 4350 | сР | Brookfield |
| 25°C ⁵ | 250 | сР | Brookfield |
| 25°C | 2430 | сР | Brookfield |
| Demold Time (25°C) | 120 - 180 | min | |
| Additional Information | Nominal Value | Unit | Test Method |

In order to achieve maximum physical properties, a post cure with heat is required. BJB recommends 24 hours at ambient temperature, $77^{\circ}F$ (25°C), followed by 16 hours at $160^{\circ}F$ ($71^{\circ}C$).

| NOTE | |
|------|-----------|
| 1. | Part A |
| 2. | Part B |
| 3. | 100g mass |
| 4. | Part A |
| 5. | Part B |

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