

apilon 52® TL 45

Thermoplastic Polyurethane Elastomer (Polyether)

API SpA

Message:

apilon 52®TL 45 is a thermoplastic polyurethane elastomer (polyether)(TPU-polyether) product. It can be processed by injection molding and is available in Europe. apilon 52®The application areas of TL 45 include engineering/industrial accessories, electrical/electronic applications, electrical appliances, tools and home applications.

Features include:
environmental protection/green
low temperature resistance

| General Information | | | |
|-------------------------------------|------------------------------------|-------|-------------|
| Features | Antimicrobial | | |
| | Recyclable materials | | |
| | Low temperature resistance | | |
| | Hydrolysis resistance | | |
| Uses | Handle | | |
| | Wheels | | |
| | Conveyor belt repair | | |
| | Electrical/Electronic Applications | | |
| | Electrical appliances | | |
| | Washer | | |
| | Power/other tools | | |
| | Pipe fittings | | |
| | Household goods | | |
| | Sporting goods | | |
| | Coating application | | |
| | Footwear | | |
| Processing Method | Injection molding | | |
| Physical | Nominal Value | Unit | Test Method |
| Specific Gravity | 1.14 | g/cm³ | ASTM D792 |
| Hardness | Nominal Value | Unit | Test Method |
| Durometer Hardness (Shore D, 3 sec) | 45 | | ASTM D2240 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Strength | | | ASTM D638 |
| -- | 35.0 | MPa | ASTM D638 |
| 100% strain | 10.0 | MPa | ASTM D638 |
| 300% strain | 18.0 | MPa | ASTM D638 |
| Tensile Elongation (Break) | 500 | % | ASTM D638 |
| Flexural Modulus (23°C) | 80.0 | MPa | ASTM D790 |

| | | | |
|-----------------------------|---------------|-----------------|-------------|
| Abrasion Resistance | 50.0 | mm ³ | DIN 53516 |
| Elastomers | Nominal Value | Unit | Test Method |
| Tear Strength ¹ | 100 | kN/m | ASTM D624 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact (-20°C) | No Break | | ASTM D256 |
| Injection | Nominal Value | Unit | |
| Drying Temperature | 80 - 100 | °C | |
| Drying Time | 2.0 | hr | |
| Suggested Max Moisture | 0.070 | % | |
| Rear Temperature | 180 - 190 | °C | |
| Middle Temperature | 185 - 200 | °C | |
| Front Temperature | 190 - 215 | °C | |
| Nozzle Temperature | 200 - 230 | °C | |
| Mold Temperature | 30 - 60 | °C | |
| Injection Pressure | 50.0 - 100 | MPa | |
| Injection Rate | Slow-Moderate | | |

NOTE

1. With Notch

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