# apilon 52® MS 70

### Thermoplastic Polyurethane Elastomer (Polyester)

#### API SpA

#### Message:

apilon 52® MS 70 is a thermoplastic polyurethane elastomer (polyester) (TPU-polyester) product. It can be processed by injection molding and is available in Europe. apilon 52® The application areas of MS 70 include engineering/industrial accessories, electrical/electronic applications, electrical appliances, tools and home applications.

Rigidity, high

Features include: High stiffness environmental protection/green Good UV resistance

General Information

Features

|                                     | Good UV resistance Recyclable materials |       |             |  |
|-------------------------------------|-----------------------------------------|-------|-------------|--|
|                                     |                                         |       |             |  |
|                                     | 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                    | 1.19                                    | g/cm³ | ASTM D792   |  |
| Hardness                            | Nominal Value                           | Unit  | Test Method |  |
| Durometer Hardness (Shore D, 3 sec) | 70                                      |       | ASTM D2240  |  |
| Mechanical                          | Nominal Value                           | Unit  | Test Method |  |
| Tensile Strength                    |                                         |       | ASTM D638   |  |
|                                     | 35.0                                    | MPa   | ASTM D638   |  |
| 100% strain                         | 28.0                                    | МРа   | ASTM D638   |  |
| 300% strain                         | 33.0                                    | MPa   | ASTM D638   |  |
| Tensile Elongation (Break)          | 100                                     | %     | ASTM D638   |  |

| Flexural Modulus (23°C)    | 1000          | MPa  | ASTM D790   |
|----------------------------|---------------|------|-------------|
| Abrasion Resistance        | 40.0          | mm³  | DIN 53516   |
| Elastomers                 | Nominal Value | Unit | Test Method |
| Tear Strength <sup>1</sup> | 100           | kN/m | ASTM D624   |
| 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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