

# Sarlink® TPE AB-2241D

Thermoplastic Elastomer

Teknor Apex Company

Message:

Sarlink®TPE AB-2241D is a thermoplastic elastomer (TPE) material. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific. The processing method is extrusion or injection molding.

Typical application areas include:

Automotive Industry  
engineering/industrial accessories

| General Information                       |                                 |                   |             |
|-------------------------------------------|---------------------------------|-------------------|-------------|
| Uses                                      | Blow molding applications       |                   |             |
|                                           | Washer                          |                   |             |
|                                           | Weather-resistant sealing strip |                   |             |
|                                           | Application in Automobile Field |                   |             |
|                                           | Car interior parts              |                   |             |
|                                           | Automotive exterior parts       |                   |             |
|                                           | Car exterior decoration         |                   |             |
|                                           | General                         |                   |             |
| Forms                                     | Particle                        |                   |             |
| Processing Method                         | Extrusion                       |                   |             |
|                                           | Injection molding               |                   |             |
| Physical                                  | Nominal Value                   | Unit              | Test Method |
| Density                                   | 0.960                           | g/cm <sup>3</sup> | ISO 1183    |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg) | 8.0                             | g/10 min          | ISO 1133    |
| Molding Shrinkage                         |                                 |                   | ISO 2577    |
| Vertical flow direction: 23°C             | 1.1                             | %                 | ISO 2577    |
| Flow direction: 23°C                      | 1.1                             | %                 | ISO 2577    |
| Hardness                                  | Nominal Value                   | Unit              | Test Method |
| Durometer Hardness (Shore D, 10 sec)      | 41                              |                   | ISO 868     |
| Mechanical                                | Nominal Value                   | Unit              | Test Method |
| Tensile Modulus                           |                                 |                   | ISO 527-2   |
| 23°C                                      | 66.0                            | MPa               | ISO 527-2   |
| 85°C                                      | 19.0                            | MPa               | ISO 527-2   |
| Tensile Stress                            |                                 |                   | ISO 527-2   |
| Fracture, -35°C                           | 24.0                            | MPa               | ISO 527-2   |
| Fracture, 23°C                            | 19.9                            | MPa               | ISO 527-2   |
| Fracture, 85°C                            | 5.20                            | MPa               | ISO 527-2   |
| 100% strain, -35 c                        | 0.400                           | MPa               | ISO 527-2   |

| 100% strain, 23°C                                                                                     | 7.79          | MPa    | ISO 527-2   |
|-------------------------------------------------------------------------------------------------------|---------------|--------|-------------|
| 100% strain, 85°C                                                                                     | 0.400         | MPa    | ISO 527-2   |
| Tensile Strain                                                                                        |               |        | ISO 527-2   |
| Fracture, -35°C                                                                                       | 450           | %      | ISO 527-2   |
| Fracture, 23°C                                                                                        | 700           | %      | ISO 527-2   |
| Fracture, 85°C                                                                                        | > 600         | %      | ISO 527-2   |
| Flexural Modulus                                                                                      |               |        | ISO 178     |
| 23°C                                                                                                  | 149           | MPa    | ISO 178     |
| 85°C                                                                                                  | 65.6          | MPa    | ISO 178     |
| Elastomers                                                                                            | Nominal Value | Unit   | Test Method |
| Tear Strength                                                                                         |               |        | ISO 34-1    |
| -35°C                                                                                                 | 130           | kN/m   | ISO 34-1    |
| 23°C                                                                                                  | 80.6          | kN/m   | ISO 34-1    |
| 85°C <sup>1</sup>                                                                                     | 40.3          | kN/m   | ISO 34-1    |
| 85°C <sup>2</sup>                                                                                     | 45.5          | kN/m   | ISO 34-1    |
| 85°C <sup>3</sup>                                                                                     | 28.0          | kN/m   | ISO 34-1    |
| Thermal                                                                                               | Nominal Value | Unit   | Test Method |
| Heat Deflection Temperature (0.45 MPa, Annealed)                                                      | 43.9          | °C     | ISO 75-2/B  |
| Glass Transition Temperature                                                                          | -60.0         | °C     | DSC         |
| Melting Temperature (DSC)                                                                             | 159           | °C     | ISO 3146    |
| Flammability                                                                                          | Nominal Value | Unit   | Test Method |
| Burning Rate                                                                                          | 83            | mm/min | FMVSS 302   |
| Additional Information                                                                                |               |        |             |
| Fogging 3Hrs 100C=97%                                                                                 |               |        |             |
| Injection                                                                                             | Nominal Value | Unit   |             |
| Rear Temperature                                                                                      | 199 - 210     | °C     |             |
| Middle Temperature                                                                                    | 204 - 216     | °C     |             |
| Front Temperature                                                                                     | 210 - 221     | °C     |             |
| Nozzle Temperature                                                                                    | 216 - 227     | °C     |             |
| Processing (Melt) Temp                                                                                | 216 - 227     | °C     |             |
| Mold Temperature                                                                                      | 35.0 - 65.6   | °C     |             |
| Injection Pressure                                                                                    | 1.38 - 6.89   | MPa    |             |
| Injection Rate                                                                                        | Fast          |        |             |
| Back Pressure                                                                                         | 0.172 - 0.862 | MPa    |             |
| Screw Speed                                                                                           | 50 - 120      | rpm    |             |
| Cushion                                                                                               | 3.81 - 25.4   | mm     |             |
| Injection instructions                                                                                |               |        |             |
| Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 65°C. |               |        |             |
| Extrusion                                                                                             | Nominal Value | Unit   |             |
| Cylinder Zone 1 Temp.                                                                                 | 193 - 204     | °C     |             |
| Cylinder Zone 2 Temp.                                                                                 | 199 - 210     | °C     |             |

|                       |           |    |
|-----------------------|-----------|----|
| Cylinder Zone 3 Temp. | 204 - 216 | °C |
| Cylinder Zone 5 Temp. | 210 - 221 | °C |
| Die Temperature       | 216 - 227 | °C |

#### Extrusion instructions

Screw Speed: 30 to 100 rpm

#### NOTE

1. Method Bb, Angle (Nicked)
2. Method Ba , angle (Unnicked)
3. Method A Trouser

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#### Recommended distributors for this material

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