

# Sarlink® TPE ML-1150B BLK X (PRELIMINARY DATA)

Thermoplastic Elastomer  
Teknor Apex Company

**Message:**  
Sarlink ML-1150B BLK X is a general purpose TPE designed for automotive interior applications. This is a medium hardness, high density grade suitable for injection molding.

| General Information                       |                                 |                   |             |
|-------------------------------------------|---------------------------------|-------------------|-------------|
| Features                                  | Sunlight Resistant              |                   |             |
|                                           | High specific gravity           |                   |             |
|                                           | High density                    |                   |             |
|                                           | Medium liquidity                |                   |             |
|                                           | Fill                            |                   |             |
|                                           | Medium hardness                 |                   |             |
|                                           | UV absorption                   |                   |             |
| Uses                                      | Washer                          |                   |             |
|                                           | Application in Automobile Field |                   |             |
|                                           | Car interior parts              |                   |             |
|                                           | General                         |                   |             |
| Appearance                                | Black                           |                   |             |
| Forms                                     | Particle                        |                   |             |
| Processing Method                         | Injection molding               |                   |             |
| Physical                                  | Nominal Value                   | Unit              | Test Method |
| Density                                   | 1.19                            | g/cm <sup>3</sup> | ISO 1183    |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 6.0                             | g/10 min          | ASTM D1238  |
| Hardness                                  | Nominal Value                   | Unit              | Test Method |
| Durometer Hardness                        |                                 |                   | ISO 868     |
| Shore A, 1 second, injection molding      | 53                              |                   | ISO 868     |
| Shore A, 5 seconds, injection molding     | 51                              |                   | ISO 868     |
| Shore A, 15 seconds, injection molding    | 49                              |                   | ISO 868     |
| Elastomers                                | Nominal Value                   | Unit              | Test Method |
| Tensile Stress <sup>1</sup>               |                                 |                   | ISO 37      |
| Transverse flow: 100% strain              | 1.13                            | MPa               | ISO 37      |
| Flow: 100% strain                         | 1.60                            | MPa               | ISO 37      |
| Tensile Stress <sup>2</sup>               |                                 |                   | ISO 37      |

|                                                       |               |        |             |
|-------------------------------------------------------|---------------|--------|-------------|
| Transverse flow: Fracture                             | 4.90          | MPa    | ISO 37      |
| Flow: Fracture                                        | 4.30          | MPa    | ISO 37      |
| Tensile Elongation <sup>3</sup>                       |               |        | ISO 37      |
| Transverse flow: Fracture                             | 860           | %      | ISO 37      |
| Flow: Fracture                                        | 740           | %      | ISO 37      |
| Tear Strength <sup>4</sup>                            |               |        | ISO 34-1    |
| Transverse flow                                       | 20            | kN/m   | ISO 34-1    |
| Flow                                                  | 20            | kN/m   | ISO 34-1    |
| Compression Set <sup>5</sup>                          |               |        | ISO 815     |
| 23°C, 22 hr                                           | 25            | %      | ISO 815     |
| 70°C, 22 hr                                           | 43            | %      | ISO 815     |
| 90°C, 70 hr                                           | 69            | %      | ISO 815     |
| 125°C, 70 hr                                          | 93            | %      | ISO 815     |
| Aging                                                 | Nominal Value | Unit   | Test Method |
| Change in Tensile Strength in Air <sup>6</sup>        |               |        | ISO 188     |
| Transverse flow: 110°C, 1008 hr                       | 8.2           | %      | ISO 188     |
| Flow: 110°C, 1008 hr                                  | 14            | %      | ISO 188     |
| Transverse flow: 100% strain 110°C, 1008 hr           | 2.7           | %      | ISO 188     |
| Flow: 100% strain 110°C, 1008 hr                      | 3.8           | %      | ISO 188     |
| Transverse flow: 125°C, 168 hr                        | 12            | %      | ISO 188     |
| Flow: 125°C, 168 hr                                   | 14            | %      | ISO 188     |
| Transverse flow: 100% strain 125°C, 168 hr            | -0.88         | %      | ISO 188     |
| Flow: 100% strain 125°C, 168 hr                       | 13            | %      | ISO 188     |
| Change in Tensile Strain at Break in Air <sup>7</sup> |               |        | ISO 188     |
| Transverse flow: 110°C, 1008 hr                       | 8.1           | %      | ISO 188     |
| Flow: 110°C, 1008 hr                                  | 12            | %      | ISO 188     |
| Transverse flow: 125°C, 168 hr                        | 15            | %      | ISO 188     |
| Flow: 125°C, 168 hr                                   | 18            | %      | ISO 188     |
| Change in Shore Hardness in Air                       |               |        | ISO 188     |
| Support a, 110°C, 1008 hr <sup>8</sup>                | 1.1           |        | ISO 188     |
| Support a, 110°C, 1008 hr <sup>9</sup>                | 1.3           |        | ISO 188     |
| Support a, 110°C, 1008 hr <sup>10</sup>               | 0.0           |        | ISO 188     |
| Support a, 125°C, 168 hr <sup>11</sup>                | 1.5           |        | ISO 188     |
| Support a, 125°C, 168 hr <sup>12</sup>                | 1.2           |        | ISO 188     |
| Support a, 125°C, 168 hr <sup>13</sup>                | 0.80          |        | ISO 188     |
| Fill Analysis                                         | Nominal Value | Unit   | Test Method |
| Apparent Viscosity (200°C, 206 sec <sup>-1</sup> )    | 127           | Pa · s | ASTM D3835  |
| Additional Information                                | Nominal Value | Unit   | Test Method |
| Xenon Weatherometer                                   |               |        | SAE J1885   |
| Delta E - 1250 kJ                                     | 0.430         |        | SAE J1885   |
| Delta E - 2500 kJ                                     | 0.190         |        | SAE J1885   |

#### Legal statement

The information and recommendations contained in this bulletin are, to the best of our knowledge, accurate and reliable but no guarantee of their accuracy is made. All products are sold upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes and uses and purchaser assumes all risks and liability for the results of use of the products, including use in accordance with seller's recommendations. Nothing in this bulletin constitutes permission or a recommendation to practice or use any invention covered by any patent owned by this company or others. There is no warranty of merchantability and there are no other warranties for the products described. For detailed Product Stewardship information, please contact us. Any product of Teknor Apex, including product names, shall not be used or tested in medical or food contact applications without the prior written acknowledgement of Teknor Apex as to the intended use. Please note that some products may not be available in one or more countries.

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Rear Temperature       | 171 - 193     | °C   |
| Middle Temperature     | 177 - 199     | °C   |
| Front Temperature      | 182 - 204     | °C   |
| Nozzle Temperature     | 188 - 210     | °C   |
| Processing (Melt) Temp | 188 - 210     | °C   |
| Mold Temperature       | 25.0 - 65.6   | °C   |
| Injection Pressure     | 1.38 - 6.89   | MPa  |
| Injection Rate         | Moderate-Fast |      |
| Back Pressure          | 0.172 - 0.345 | MPa  |
| Screw Speed            | 50 - 100      | 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 150°F (65°C).

#### NOTE

|     |                                                            |
|-----|------------------------------------------------------------|
| 1.  | Type 1, 510mm/min                                          |
| 2.  | Type 1, 510mm/min                                          |
| 3.  | Type 1, 510mm/min                                          |
| 4.  | B method, right angle specimen<br>(without cut), 510mm/min |
| 5.  | Type a                                                     |
| 6.  | Type 1                                                     |
| 7.  | Type 1                                                     |
| 8.  | 5 sec                                                      |
| 9.  | 15 sec                                                     |
| 10. | 1 sec                                                      |
| 11. | 15 sec                                                     |
| 12. | 5 sec                                                      |
| 13. | 1 sec                                                      |

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

#### Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: [sales@su-jiao.com](mailto:sales@su-jiao.com)

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

