

# Dryflex® A2 660602

Styrene Ethylene Butylene Styrene Block Copolymer

ELASTO

## Message:

Dryflex A thermoplastic elastomer (TPE) bondable grades, primarily based on SBS and SEBS, increase freedom of design and open up a vast range of application opportunities.

It used to be a complex and costly affair producing details made of thermoplastics that showed soft-touch qualities or had integrated seals. With Dryflex A TPEs, since the materials are bonded together at the production stage, no separate primer or adhesive is needed. This makes the process faster and more cost-effective than if the two parts were assembled together after each had been produced separately, or bonded mechanically, which often requires some modification to the design.

Primarily a TPE is used as the soft component. Dryflex A bondable grades can be co-extruded or overmoulded with a variety of engineering plastics. Dryflex A grades are available in black or natural and can easily be coloured. These thermoplastic elastomers form excellent bonds onto PP, PE, PA, ABS, PC, PS, PMMA, ASA, SAN and their blends. Polyamides and ABS may be either reinforced or non-reinforced yet still bond extremely well to Dryflex. It is easy to achieve excellent bonding to PP, even using standard TPE materials, while other thermoplastics require some modification of the TPE material to optimise bonding.

| General Information                       |                             |                   |             |
|---|-----------------------------|-------------------|-------------|
| Features                                  | Good UV resistance          |                   |             |
|   | Adhesiveness                |                   |             |
|   | Good chemical resistance    |                   |             |
|   | Good weather resistance     |                   |             |
|   | Compliance of Food Exposure |                   |             |
| Appearance                                | Available colors            |                   |             |
|   | Natural color               |                   |             |
| Forms                                     | Particle                    |                   |             |
| Processing Method                         | Extrusion                   |                   |             |
|   | Injection molding           |                   |             |
| Physical                                  | Nominal Value               | Unit              | Test Method |
| Specific Gravity                          | 1.06                        | g/cm <sup>3</sup> | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 8.0                         | g/10 min          | ASTM D1238  |
| Hardness                                  | Nominal Value               | Unit              | Test Method |
| Durometer Hardness (Shore A, 4.00 mm)     | 60                          |                   | ASTM D2240  |
| Mechanical                                | Nominal Value               | Unit              | Test Method |
| Tensile Strength                          |                             |                   | ASTM D638   |
| --  | 5.00                        | MPa               | ASTM D638   |
| 100% strain                               | 2.20                        | MPa               | ASTM D638   |
| 300% strain                               | 3.50                        | MPa               | ASTM D638   |
| Tensile Elongation (Break)                | 600                         | %                 | ASTM D638   |
| Elastomers                                | Nominal Value               | Unit              | Test Method |
| Tear Strength                             | 28.0                        | kN/m              | ASTM D624   |

| Thermal                 | Nominal Value | Unit        |
|-------------------------|---------------|-------------|
| Service Temperature     | -50 - 125     | °C          |
| Peel Force <sup>1</sup> | Cohesive      | ASTM D903   |
| Additional Information  | Nominal Value | Test Method |

The material has good adhesion to PC/ABS, ABS and PC.

| Injection          | Nominal Value | Unit |
|--------------------|---------------|------|
| Rear Temperature   | 220 - 240     | °C   |
| Middle Temperature | 220 - 240     | °C   |
| Front Temperature  | 220 - 240     | °C   |
| Mold Temperature   | 60.0          | °C   |

| Extrusion             | Nominal Value | Unit |
|-----------------------|---------------|------|
| Cylinder Zone 1 Temp. | 220 - 240     | °C   |
| Cylinder Zone 2 Temp. | 220 - 240     | °C   |
| Cylinder Zone 3 Temp. | 220 - 240     | °C   |
| Cylinder Zone 4 Temp. | 220 - 240     | °C   |
| Cylinder Zone 5 Temp. | 220 - 240     | °C   |

#### NOTE

1. Tests conducted on overmoulded test specimens, 2.5mm thick with a 90° peel angle

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#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

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

