

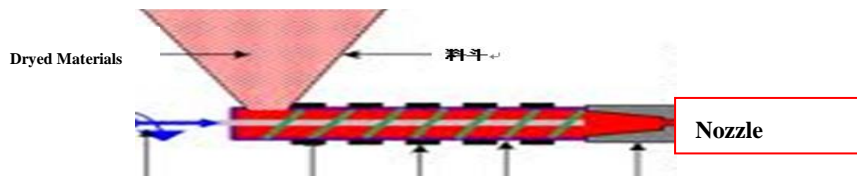
## Dawnprene TPV 13-55A

### Features:

A soft, black thermoplastic vulcanized (TPV) in the thermoplastic elastomer (TPE) family. This material combines good physical properties, chemical resistance and elasticity, designed for extrusion and injection applications. This grade of TPV can be processed on conventional thermoplastics equipment for extrusion, injection molding. It is polyolefin based and completely recyclable.

| <b>FEATURES</b>   |                                   |                   |                      |
|---|-----------------------------------|-------------------|----------------------|
| Application   | * extrusion                       |                   | * injection          |
| RoHS Compliance   | * RoHS                            |                   |                      |
| Color   | * Black                           |                   |                      |
| Form  | * pellet                          |                   |                      |
| Molding method  | *extrusion*injection*blow molding |                   |                      |
| Revise date   | * 2019-3-13                       |                   |                      |
| <b>Physical Properties</b>  | <b>Typical Value</b>              | <b>Unit</b>       | <b>Test Standard</b> |
| Density   | 0.960                             | g/cm <sup>3</sup> | ASTM D792            |
| <b>Hardness</b>   |                                   |                   |                      |
| Shore Hardness (Shore A,15 sec,23°C)  | 57.6                              | A                 | ASTM D2240           |
| <b>Mechanical Property</b>  |                                   |                   |                      |
| 100% Stretching strength –vertical flow direction 23°C  | 1.68                              | Mpa               | ASTM D412            |
| Tensile strength- vertical flow direction 23°C  | 5.5                               | Mpa               | ASTM D412            |
| Elongation at break –vertical flow direction 23°C   | 400                               | %                 | ASTM D412            |
| Tear strength – vertical flow direction 23°C Die C  | 28                                | KN/m              | ASTM D624            |
| <b>Thermal Properties</b>   |                                   |                   |                      |
| Brittle Temperature   | -54                               | °C                | ASTM D746            |
| <b>Electrical Properties</b>  |                                   |                   |                      |
| Dielectric constant(23°C)   | 2.65                              | --                | ASTM D150            |
| Surface resistance  | 10 <sup>13</sup>                  | ---               | GB/T1410             |
| <b>Flammability</b>   |                                   |                   |                      |
| Burning Rate  | 25                                | mm/min            | GB/T8410             |
| <b>Ageing Properties</b>  |                                   |                   |                      |
| Tensile strength in air (100°C,168hr)   | 5.2                               | Mpa               | ASTM D412            |
| Elongation at break in air (100°C,168hr)  | 380                               | %                 |                      |
| Hardness changing in air (100°C,168hr)  | +1.6                              | A                 |                      |
| Ozone resistance (200PPHM, 40°C*72hr)   | No crack                          | --                | ASTM D7762           |
| Weather resistance (0.55w/m <sup>2</sup> 1890hr, xenon-arc aging)<br>Appearance changing  | No stick ,no<br>crack ,no powder  | --                | SAEJ2527             |
| Weather resistance (0.55w/m <sup>2</sup> 1890hr, xenon-arc aging)<br>Grey Level   | 4.0                               | --                | SAEJ2527             |
| <b>Molding Method</b>   |                                   |                   |                      |
| Drying Instructions: Need drying the granules before make molding, excessive moisture will lead materials bad extrusion surface, mechanical performance reduction and bad surface appearance. Moisture content request below 0.01%,suggesting drying as follow process: |                                   |                   |                      |
| Drying conditions   | Drying temperature/°C             | Drying time/hour  |                      |
| first choice  | 80~90                             | 2~3               |                      |
| other choice  | 100                               | 1                 |                      |

If drying temperature over than 110°C, it might cause materials blocking in barrel zone; if use moisture analysis meter, the temperature setting should be on 105°C.



| Screw Speed R | Zone I  | Zone II | Zone III | Zone IV | Zone V  | Nozzle  |
|---------------|---------|---------|----------|---------|---------|---------|
| 40-150        | 160-170 | 180-185 | 190-210  | 190-215 | 180-205 | 170-185 |

**Addition Information**

1. Dawnprene TPV is incompatible with PVC materials, hence must clean the equipment before using.
2. Above testing data is tested by injection sample block, cutting by the sheet size is 110 mm × 85 mm × 2 mm .
3. Compression Set 25%
4. The properties is typical performance, is not regarding as technical index or agreement.
5. Any reprocessing must follow the above instructions, and ensure no content impurity.
6. Above instructions for reference only, different equipment might have difference parameters, please adjust accordingly with different mold and product shape.

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