

## ValuPrene p-TPV 55A BK

## PRODUCT DATA SHEET

A medium hardness, black color, multi-purpose thermoplastic elastomer featuring good compression set and moderate temperature performance. ValuPrene 55A BK can be processed by extrusion for applications such as weatherstrip profile, seals, and window gaskets.

### Attributes:

- ValuPrene p-TPV is designed for applications requiring sealing performance at moderate temperatures.
- Suitable for profile extrusion.
- Conventional thermoplastic processing equipment can be used.

### Applications:

ValuPrene p-TPV has good sealing property, chemical, weathering resistance and electrical property that is suitable for TPV, thermoset EPDM rubber, Styrene based TPE, flexible PVC and other TPE applications. It is a good choice for applications requiring flexibility in the following markets: automotive parts, appliance, construction, consumer products, and electronics.

| Property                                        | Typical Value | Unit    | Test Method |
|-------------------------------------------------|---------------|---------|-------------|
| <b>PHYSICAL</b>                                 |               |         |             |
| Hardness<br>Injection Molded, 15 sec            | 58            | Shore A | ISO 868     |
| Specific Gravity<br>23°C                        | 0.96          | N/A     | ISO 1183    |
| Melting Point                                   | 150           | °C      | LCY Method  |
| Compression Set<br>22 hr @ 23°C<br>22 hr @ 70°C | 18<br>33      | %       | ISO 815     |
| <b>MECHANICAL</b>                               |               |         |             |
| Tensile Strength<br>23°C, 500 mm/min            | 7.5           | MPa     | ISO 37      |
| Tensile Modulus @ 100%<br>23°C, 500 mm/min      | 2.0           | MPa     | ISO 37      |
| Ultimate Elongation<br>23°C, 500 mm/min         | 650           | %       | ISO 37      |
| Tear Strength<br>23°C, 500 mm/min               | 18            | kN/m    | ISO 34-1    |

## PROCESSING & HANDLING GUIDE

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ValuPrene p-TPV series can be processed on conventional thermoplastic equipment by extrusion. This product has a wide processing window in most applications with melt temperatures ranged from 170°C to 210°C. Pre-drying is recommended for 3-4 hours at 80-90°C before processing.

### EXTRUSION CONDITIONS

|                                     |                                       |
|-------------------------------------|---------------------------------------|
| Melt Temperature                    | 170-210°C                             |
| Barrel Temperatures - Zone 1 (Feed) | 170°C                                 |
| Zone 2                              | 180°C                                 |
| Zone 3 (Transition)                 | 190°C                                 |
| Zone 4 (Metering)                   | 200°C                                 |
| Zone 5 (Front)                      | 210°C                                 |
| Die                                 | 210°C                                 |
| Roll Temperature                    | 20-50°C                               |
| Screen Pack mesh                    | 20 to 60                              |
| Screw L/D ratio                     | General Purpose > 20:1 (Typical 24:1) |
| Compression ratio                   | 2.5-3 : 1                             |

## Purging

Recommended to purge thoroughly before and after use of this product with fractional MFR polypropylene.

## Recycling & Regrinding

This product can be reprocessed; regrind percentage and number of regrind are subject to end use requirement. Pre-drying should be according to above stated drying condition.

## Handling & Storage

ValuPrene p-TPV series is available in 25 kg with Laminated aluminum foil bags (up to 750 kg per pallet). It has a storage life of 3 years from production date with proper storage at normal temperature away from direct sunlight. Please refer to the Material Safety Data Sheet for this material prior to first time handling & storage or contact LCY representative for further information.

## Disclaimer

The values quoted here are typical of the grade and obtained from LCY lab. However, it is important to recognize that some variation around these values is to be expected as a result of uncertainties associated with measurement of the specific property and due to the normal variations encountered during the manufacturing process. We hope above information is sufficient. Because of possible changes in the law and in the regulations, we recommend that customers continuing to use our products verify status every year from this date. We cannot anticipate all conditions under which this information and our products or the products of other manufacturers in combination with our products may be used. We accept no responsibility for the results obtained by the application of this information or the safety and suitability of our products alone or in combination with other products. Before using a LCY product, customers and other users should make their own independent determination that the product is suitable for the intended use. They should also ensure that they can use the LCY product safely and legally. This document does not constitute a warranty, express or implied, including a warranty of merchantability or fitness for a particular purpose. No one is authorized to make such warranties or assume any liabilities on behalf of LCY except in writing signed by an authorized LCY employee. In no event shall LCY be liable for special, consequential, incidental, punitive, or exemplary damages.

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