

**Product Data Sheet****AVALON® 90 AEU JS**

Polyester-based Thermoplastic Polyurethane

**PRODUCT DESCRIPTION**

AVALON® 90 AEU JS is a polyester-based Thermoplastic Polyurethane (TPU) for injection moulding and part of the AVALON Perform Range. Key features are plasticizer-free, improved UV stability, abrasion resistance, cut and scratch resistance, excellent surface definition and durability.

**APPLICATIONS**

Casual and fashion footwear and sports footwear.

**TYPICAL PHYSICAL PROPERTIES**

| Properties                       | Key | NORM       | Value | Unit              |
|----------------------------------|-----|------------|-------|-------------------|
| Hardness (after 3 sec.)          | M   | ISO 7619   | 90    | Shore A           |
| Hardness (after 3 sec.)          | M   | ISO 7619   | 42    | Shore D           |
| Density                          | M   | ISO 1183-1 | 1.22  | g/cm <sup>3</sup> |
| Tensile strength                 | M   | DIN 53504  | 45    | MPa               |
| Elongation @ break               | M   | DIN 53504  | 600   | %                 |
| Tensile stress @ 100% elongation | M   | DIN 53504  | 8.0   | MPa               |
| Tensile stress @ 300% elongation | M   | DIN 53504  | 18.1  | MPa               |
| Tear strength                    | M   | ISO 34-1   | 85    | N/mm              |
| Abrasion                         | M   | ISO 4649   | 30    | mm <sup>3</sup>   |
| Compression set at 70h @ 23°C    | M   | ISO 815    | 25    | %                 |

M = Injection molded parts to meet DIN & ASTM requirements. Parts tempered for 20 hrs @ 100 °C prior to testing



## HEALTH & SAFETY ADVICE

Before undertaking any trials with this product it is essential that all personnel are aware of the necessary precautions that must be taken. These are detailed in the relevant Material Safety Data Sheet (MSDS), which will be provided by Huntsman.

## SUPPLY & STORAGE

AVALON® 90 AEU JS is supplied in bags, drums or octabins. Please contact your customer service to confirm this.

AVALON® 90 AEU JS has a minimum expected shelf life of 12 months after shipment date. The product should be stored in a dry and cool place in the manufacturer's original packaging.

## MATERIAL PREPARATION

AVALON® 90 AEU JS is supplied pre-dried, however to ensure trouble-free processing it is preferable to dry before use. The recommended drying conditions are:

- 3 hours at 100-110°C in circulating air
- 3 hours at 80-90°C in dehumidified air
- Dew point: -30°C

## PHYSICAL FORM

Type: Transparent pellets

## PROCESSING PARAMETERS

Processing Parameter: Injection Molding

|                     |           |
|---------------------|-----------|
| Temperature Profile | °C        |
| Feed Zone:          | 25 - 40   |
| Barrel:             | 185 - 205 |
| Nozzle:             | 180 - 190 |
| Mold:               | 20 - 50   |

For further information, please contact your nearest sales office: [http://www.huntsman.com/PU\\_customer\\_service](http://www.huntsman.com/PU_customer_service)

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