## Wanthane® WHT-1180

Thermoplastic Polyurethane Elastomer (Polyester)

Wanhua Chemical Group Co., Ltd.

## Message:

WHT-1180 is polyester-based TPU for injection molding and extrusion applications, supplied in form of transparent, translucent, colorless or slightly yellowish pellets with the characteristic of Plasticizer Free, Excellent strength, resilience and abrasion resistance

Applications:

Shoes, Compounding, Straps etc

General Information

| donoral information  |                                       |                                |  |
|--|---------------------------------------|--------------------------------|--|
| Features   | Good Abrasion Resistance              |                                |  |
|  | Good Strength                         |                                |  |
|  | Resilient                             |                                |  |
|  |                                       |                                |  |
| Uses   | Compounding                           |                                |  |
|  | Footwear                              |                                |  |
|  | Strapping                             |                                |  |
|  |                                       |                                |  |
| Appearance   | Colorless                             |                                |  |
|  | Translucent                           |                                |  |
|  | Transparent - Slight Yellow           |                                |  |
|  |                                       |                                |  |
| Forms  | Pellets                               |                                |  |
| Processing Method  | Extrusion                             |                                |  |
|  | Injection Molding                     |                                |  |
|  |                                       |                                |  |
| Physical   | Nominal Value                         | Unit                           | Test Method  |
| Density  | 1.18                                  | g/cm³                          | ASTM D792  |
| Hardness   | Nominal Value                         | Unit                           | Test Method  |
| Durometer Hardness (Shore A)   | 80                                    |                                | ACTN 4 D00 40  |
| Elastomers   | 00                                    |                                | ASTM D2240   |
|  | Nominal Value                         | Unit                           | Test Method  |
|  |                                       | Unit                           |  |
|  |                                       | Unit                           | Test Method  |
| Tensile Stress   | Nominal Value                         |                                | Test Method  |
| Tensile Stress  100% Strain  300% Strain   | Nominal Value 5.00                    | MPa                            | Test Method  |
| Tensile Stress  100% Strain  300% Strain  Tensile Strength   | Nominal Value  5.00  9.00             | MPa<br>MPa                     | Test Method ASTM D412  |
| Tensile Stress  100% Strain  300% Strain  Tensile Strength  Tensile Elongation (Break)                         | 5.00<br>9.00<br>30.0                  | MPa<br>MPa<br>MPa              | Test Method  ASTM D412  ASTM D412                                  |
| Tensile Stress 100% Strain   | 5.00<br>9.00<br>30.0<br>590           | MPa<br>MPa<br>MPa<br>%         | ASTM D412  ASTM D412  ASTM D412  ASTM D412                         |
| Tensile Stress  100% Strain  300% Strain  Tensile Strength  Tensile Elongation (Break)  Tear Strength          | 5.00<br>9.00<br>30.0<br>590<br>87.0   | MPa<br>MPa<br>MPa<br>%<br>kN/m | ASTM D412  ASTM D412  ASTM D412  ASTM D412  ASTM D412              |
| Tensile Stress  100% Strain  300% Strain  Tensile Strength  Tensile Elongation (Break)  Tear Strength  Thermal | 5.00 9.00 30.0 590 87.0 Nominal Value | MPa MPa MPa % kN/m Unit        | ASTM D412  ASTM D412  ASTM D412  ASTM D412  ASTM D624  Test Method |

| Drying Time  | 2.0 to 3.0                       | hr             |
|--|----------------------------------|----------------|
| Rear Temperature                                       | 185                              | °C             |
| Middle Temperature                                     | 190                              | °C             |
| Front Temperature                                      | 195                              | °C             |
| Nozzle Temperature                                     | 200                              | °C             |
| Injection Pressure                                     | 70.0                             | MPa            |
| Fishmatica   | Name in al Value                 | 11-2           |
| Extrusion  | Nominal Value                    | Unit           |
| Drying Temperature                                     | 90.0 to 100                      | °C             |
|  |                                  |                |
| Drying Temperature                                     | 90.0 to 100                      | °C             |
| Drying Temperature  Drying Time                        | 90.0 to 100<br>3.0 to 4.0        | °C<br>hr       |
| Drying Temperature  Drying Time  Cylinder Zone 1 Temp. | 90.0 to 100<br>3.0 to 4.0<br>185 | °C<br>hr<br>°C |

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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

