

# WanBlend® WHT-HF9175

Thermoplastic Polyurethane Elastomer (Polyester)

Wanhua Chemical Group Co., Ltd.

Message:

WHT-HF9175 is polyester-based flame retardant thermoplastic Polyurethane (TPU) compound, supplied in form of white pellets, which combine the zero halogen objective with excellent mechanical properties and processability.

Applications:

Extrusion - wire and cable General extrusion and injection molding where flame retardant properties are required.

| General Information |                           |  |  |
|---------------------|---------------------------|--|--|
| Additive            | Flame Retardant           |  |  |
| Features            | Flame Retardant           |  |  |
|                     | Good Processability       |  |  |
|                     | Halogen Free              |  |  |
| Uses                | Wire & Cable Applications |  |  |
| Appearance          | White                     |  |  |
| Forms               | Pellets                   |  |  |
| Processing Method   | Extrusion                 |  |  |
|                     | Injection Molding         |  |  |

| Physical                     | Nominal Value | Unit              | Test Method |
|------------------------------|---------------|-------------------|-------------|
| Density                      | 1.21          | g/cm <sup>3</sup> | ASTM D792   |
| Hardness                     | Nominal Value | Unit              | Test Method |
| Durometer Hardness (Shore A) | 72 to 78      |                   | ASTM D2240  |
| Elastomers                   | Nominal Value | Unit              | Test Method |
| Tensile Stress               |               |                   | ASTM D412   |
| 100% Strain                  | 5.00          | MPa               |             |
| 300% Strain                  | 7.00          | MPa               |             |
| Tensile Strength             | 20.0          | MPa               | ASTM D412   |
| Tensile Elongation (Break)   | 680           | %                 | ASTM D412   |
| Tear Strength                | 75.0          | kN/m              | ASTM D624   |
| Flammability                 | Nominal Value |                   | Test Method |
| Flame Rating                 | V-0           |                   | UL 94       |
| Injection                    | Nominal Value | Unit              |             |
| Drying Temperature           | 90.0 to 100   | °C                |             |
| Drying Time                  | 2.0 to 3.0    | hr                |             |
| Rear Temperature             | 175           | °C                |             |
| Middle Temperature           | 180           | °C                |             |
| Front Temperature            | 185           | °C                |             |
| Nozzle Temperature           | 190           | °C                |             |

|                       |               |      |
|-----------------------|---------------|------|
| Injection Pressure    | 65.0          | MPa  |
| Extrusion             | Nominal Value | Unit |
| Drying Temperature    | 90.0 to 100   | °C   |
| Drying Time           | 3.0 to 4.0    | hr   |
| Cylinder Zone 1 Temp. | 175           | °C   |
| Cylinder Zone 3 Temp. | 185           | °C   |
| Cylinder Zone 5 Temp. | 190           | °C   |
| Die Temperature       | 185           | °C   |

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### 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

