

# Composite PP

## TB51

### Thermal resistant PP composite

#### Application

Electrical and electronic parts, Washing machine interior parts, Washing machine Tub

#### Characteristics

Excellent heat-resistance and dimensional stability, High stiffness and impact strength, Excellent processability

#### Physical properties

| Item                        | Test Method | Unit               | Typical Value |
|-----------------------------|-------------|--------------------|---------------|
| Melt index (230°C)          | ASTM D1238  | g/10min            | 10            |
| Specific gravity            | ASTM D792   | g/cm <sup>3</sup>  | 0.97          |
| Tensile strength (at yield) | ASTM D638   | kg/cm <sup>2</sup> | 350           |
| Elongation (at break)       | ASTM D638   | %                  | 60            |
| Flexural strength           | ASTM D747   | kg/cm <sup>2</sup> | 500           |
| Flexural modulus            | ASTM D790   | kg/cm <sup>2</sup> | 20,000        |
| Izod Impact Strength (23°C) | ASTM D256   | kg cm/cm           | 5.5           |
| Rockwell hardness           | ASTM D785   | R scale            | 95            |
| Heat distortion temperature | ASTM D648   | °C                 | 130           |
| Shrinkage Ratio             | HTC METHOD  | %                  | 1.2 ~ 1.6     |

Note: The above physical property value is a representative value for reference and is not a product quality standard.

#### Processing conditions

| Item                          | Unit               | Typical value |
|-------------------------------|--------------------|---------------|
| Feeding zone temperature      | °C                 | 180 ~ 200     |
| Plasticizing zone temperature | °C                 | 190 ~ 210     |
| Metering zone temperature     | °C                 | 200 ~ 220     |
| Mold temperature              | °C                 | 40 ~ 80       |
| Screw                         | rpm                | 30 ~ 80       |
| Injection pressure            | kg/cm <sup>2</sup> | 600 ~ 1,000   |
| Holding pressure              | kg/cm <sup>2</sup> | 400 ~ 900     |

※ Actual injection conditions should be adjusted according to the type of injection machine, mold, and part size.

#### Certification

For further inquiries, please contact Hanwha TotalEnergies Petrochemical Composite Development Team.



### Contact information

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