# WPP PP PPH1TF2-Black

## Washington Penn Plastic Co. Inc. - Polypropylene Homopolymer

Wednesday, October 9, 2019

### General Information

| General | | | |
|---|---|---|---|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Filler / Reinforcement | • Talc, 20% Filler by Weight | | |
| Features | • Heat Aging Resistant | | |
| Uses | • Automotive Applications | | |
| Appearance | • Black | | |

### ASTM & ISO Properties [1]

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density / Specific Gravity | 1.06 | g/cm³ | ASTM D792 |
| Density | 1.06 | g/cm³ | ISO 1183 |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg) | 0.95 | g/10 min | ASTM D1238 |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg) | 0.95 | g/10 min | ISO 1133 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Strength [2] (Yield) | 35.0 | MPa | ASTM D638 |
| Tensile Stress | | | |
| Yield | 33.0 | MPa | ISO 527-2/5 |
| Yield | 35.0 | MPa | ISO 527-2/50 |
| Tensile Strain (Break) | 100 | % | ISO 527-2/5 |
| Flexural Modulus [3] | 2400 | MPa | ASTM D790 |
| Flexural Modulus [4] | 2500 | MPa | ISO 178 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Charpy Notched Impact Strength | | | ISO 179 |
| -40°C | 1.5 | kJ/m² | |
| 23°C | 4.5 | kJ/m² | |
| Notched Izod Impact (23°C) | 59 | J/m | ASTM D256 |
| Notched Izod Impact Strength | | | ISO 180 |
| -40°C | 2.5 | kJ/m² | |
| 10°C | 3.5 | kJ/m² | |
| 23°C | 4.5 | kJ/m² | |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load | | | ASTM D648 |
| 0.45 MPa, Unannealed | 125 | °C | |
| Heat Deflection Temperature (0.45 MPa, Unannealed) | 121 | °C | ISO 75-2/B |
| Deflection Temperature Under Load | | | ASTM D648 |
| 1.8 MPa, Unannealed | 74.0 | °C | |
| Heat Deflection Temperature | | | |
| 1.8 MPa, Unannealed | 76.0 | °C | ISO 75-2/A |
| 1.8 MPa, Unannealed | 73.0 | °C | ISO 75-2/Af |

**Additional Information**

Tested at 23 ± 2°C (73.4 ± 3.6°F) and 50 ± 5% relative humidity unless otherwise noted.

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### Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 50 mm/min

[3] 1.3 mm/min

[4] 2.0 mm/min