

# Material Identification

## HHPP

**high heat polypropylene**

heat stabilized

halogen free

black, orange, grey

Properties	Values	Unit	Test Conditions	
<b>General</b>		-	<b>conditions</b>	<b>acc. to spec</b>
Density	0.95	g/cm <sup>3</sup>	23 °C	ASTM D792-00
<b>Mechanical</b>				
Flexural modulus	> 1000	MPa	1.3 mm/min	ASTM D790
Tensile strength at yield	23	MPa	50 mm/min	ASTM D638
Tensile strain at yield	9	%	50 mm/min	ASTM D638
Notched Izod Impact	747	J/m	23 °C / Meth. A	ASTM D258
<b>Thermal</b>				
Temperature of Heat Deflection	95	°C	0.45 MPa	ASTM D648
	55	°C	1.8 MPa	ASTM D648
<b>Product specifications<sup>1)</sup></b>				
Service temperature	-40	°C	24 h	-
	125	°C	3000 h	-
Peak temperature	150	°C	500 h	-
Flammability	< 75	mm/min	-	ISO 3795
	HB	class	3 mm	UL94

1) product related - corrugated tube

The stated values fall within the normal range of properties of the base polymer out of the mixed composition unless otherwise noted. They should not be used for setting specific limits or used as a basis for design as the properties are extensively affected by the tool design and processing conditions. Users of this product are responsible for evaluating this product to ensure their own satisfaction that it is suitable for their intended uses. All information is given without warranty or guarantee. Before working with this product, users must read and familiarize themselves with the available health, safety and environmental information that is available regarding product hazards, proper use and handling.

**This raw material is designed to meet:**

Ford ES-XU5T-14A099-AA (125°C)  
 UTMS 18013 (125°C)  
 Yazaki YPES 16-122 (125°C)  
 DELPHI M5649 & M2284  
 GMW 15926 (2008)

**This raw material is designed to meet:**

WSS-M99P9999-A1 (Ford Material Spec)  
 GMW3059