

## TPU 90 M / I

Intended for use in offshore applications

Electrical			
Properties	Method	Conditions	Value
Dielectric constant	DIN 53483	50 Hz 1 kHz	7.5 7.2
Dielectric strength	DIN 53481	2.0 mm	48 kV/mm
Dissipation factor	DIN 53483	50 Hz 1 kHz	0.063 0.026
Volume resistivity	ASTM D 257	-	>10 <sup>11</sup> Ω x cm

Physical			
Properties	Method	Conditions	Value
Density	ISO 1183	-	1.1 g/cm <sup>3</sup>
Elongation at break	IEC 60811-501	-	500 %
Hardness	DIN ISO 7619-1	-	88 A
Radiation resistance	IEC 60544	-	10 <sup>17</sup> Gy
Tensile strength	IEC 60811-501	-	29 MPa
Water absorption	ASTM D 570	-	0.4 %

Thermal			
Properties	Method	Conditions	Value
Combustion corrosivity	-	-	-
Continuous temperature rating	IEC 60216	20,000 hrs	+ 90 °C
Flammability	UL 94	1/32"	V-2
Flame propagation	-	-	-
Oxygen index	ASTM D 2863	-	22 %
Smoke density	-	-	-
Smoke index	NF F 16-101	-	10.1 (class F)
Temperature index	-	-	-
Toxicity index	NX X 70-101	600 °C	7.1

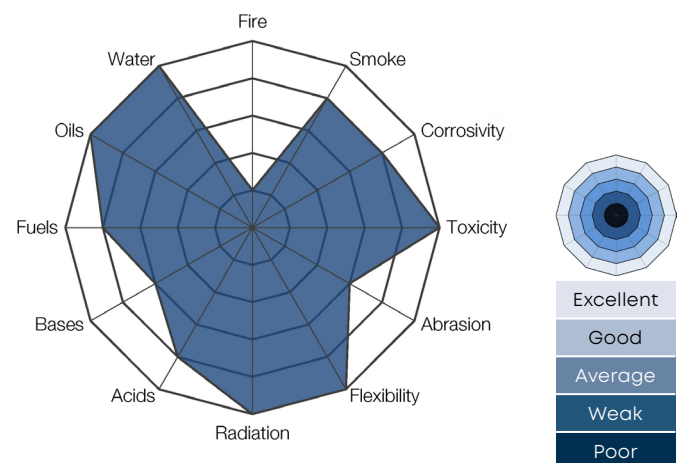
### Properties

TPU 90 M has excellent water resistance and is Habia Cable's preferred material for subsea use. It has a lower friction surface than the standard TPU 90, but still retains the gloss finish that industry expects of a TPU material.

TPU 90 M's greatest strength is in its mechanical properties where it is very tough and has both excellent flexibility and flex-life making it ideal for use in dynamic applications.

It also has a very good memory and moulding characteristics, making it easy to form into spiral cables and ideally suited for use with moulded connector backshells.

Important: Habia Cable has compiled the information contained herein from what it believes to be accurate and factual sources as of the date printed. Data is based on typical values and might vary depending on cable construction and processing method. Any changes in the data will be made without notification.



Available colours (shades may vary from material to material)



Characteristics and key properties

Intended use Small / Inner sheath	Intended use Outer sheath					Temp installation <b>-60°C</b>	Temp low <b>-60°C</b>	Temp >20,000 hrs <b>+90°C</b>	Temp peak <b>+100°C</b>
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