

LEMALLOY

Modified PPE Resin

				Filler Reinforced PPE/PA6	
Properties	Test Method	Terms	Units	BX503A-1	BX504D
				High Rigidity	High Rigidity
				Filler	Filler
				-	-
				dry(50%RH)	dry(50%RH)
Physical properties					
Density	ISO 1183	-	g/cm³	1.19	1.22
Water absorption	-	23degC, 50%RH 23degC, 60%RH 23degC, Underwater	%	- - -	- - -
Rheological properties					
Melt Mass-flow Rate	ISO 1133	Temperature	g/10min	-	-
Melt Volume-flow Rate			cm³/10min	59	21
		degC		280	280
		Load	kg	5	5
Moulding shrinkage	-	-	%	-	-
Moulding shrinkage (3.2mmt)	-	MD TD	%	1.0 - 1.2 0.9 - 1.1	0.7 - 0.9 0.6 - 0.8
Moulding shrinkage (1mmt)	-	MD TD	%	-	-
Moulding shrinkage (2mmt)	-	MD TD	%	-	-
Moulding shrinkage (3mmt)	-	MD TD	%	-	-
Mechanical properties					
Tensile modulus	ISO 527-1 , 527-2	-	MPa	3100 (1700)	4200 (2200)
Yield stress				67 (46)	- (42)
Yield strain			%	4.5 (9.0)	- (8.4)
Nominal strain at break				29 (124)	- (74)
Stress at 50% strain			MPa	-	-
Stress at break	ISO 178	-	MPa	-	62 (-)
Strain at break			%	-	6.1 (-)
Flexural strength	ISO 178	-	MPa	110 (68)	105 (57)
Flexural modulus				3400 (1800)	4200 (2100)
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m²	-	-
Charpy notched impact strength		23 degC	kJ/m²	11 (14)	6 (12)
Thermal properties					
Melting temperature	ISO 11357-3		degC	-	-
Glass transition temperature	ISO 11357-2		degC	-	-
Temperature of deflection	ISO 75-1 , 75-2	1.80MPa		121	95
under load		0.45MPa	degC	179	182
Vicat softening temperature	ISO 306	-	degC	-	-
Coefficient of Linear thermal expansion	ISO 11359-2	MD	1/degC	8.0E-05	6.0E-05
		TD		-	-
	UL94	-	-	-	-
Flammability	UL94	0.4mmt	-	-	-
Flammability	UL94	0.8mmt	-	-	-
Flammability	UL94	1.6mmt	-	-	-
Flammability	UL94	3.2mmt	-	-	-
GWFI(Glow-wire flammability test method for materials)	IEC 60695-2-12	3.0mmt	-	-	-
GWIT(Glow-wire ignitability test method for materials)	IEC 60695-2-13	3.0mmt	-	-	-
Electrical properties					
Relative permittivity	IEC 60250	100Hz	-	-	-
		1MHz	-	-	-
Dissipation factor	IEC 60250	100Hz	-	-	-
		1MHz	-	-	-
Volume resistivity	IEC 60093	-	ohm-m	-	-
Surface resistivity	IEC 60093	-	ohm	-	-
Electric strength	IEC 60243-1	1mmt	MV/m	-	-
		2mmt		-	-
		3mmt		-	-
Comparative tracking index	IEC 60112	-	-	-	-
	UL746A	-	-	-	-