

# Oupital

Polyacetal Resin



Properties	Test Method	Terms	Units	Standard				
				F10	F20	F25	F30	F40
				High Viscosity	Medium Viscosity	Medium Viscosity	Low Viscosity	Low Viscosity
				-01: No lubrication	-02: Standard	-03: Low mould deposit		
<b>Physical properties</b>								
Density	ISO 1183	-	g/cm <sup>3</sup>	1.41	1.41	1.41	1.41	1.41
Water absorption	-	23degC, 60%RH	%	0.22	0.22	0.22	0.22	0.22
<b>Rheological properties</b>								
Melt Mass-flow Rate	ISO 1133	Temperature	g/10min	2.5	9.0	16	27	52
Melt Volume-flow Rate			cm <sup>3</sup> /10min	2.2	7.7	14	23	45
			degC	190	190	190	190	190
		Load	kg	2.16	2.16	2.16	2.16	2.16
Moulding shrinkage (3mmt)	-	MD	%	2.2	2.0	2.0	2.0	2.0
		TD	%	-	-	-	-	-
<b>Mechanical properties</b>								
Tensile modulus	ISO 527-1 , 527-2	-	MPa	2800	2900	2900	2900	2900
Yield stress			63	64	64	64	64	
Yield strain			%	10	8.5	8.0	7.5	7.0
Nominal strain at break			%	33	30	27	25	20
Stress at break			MPa	-	-	-	-	-
Strain at break	%	-	-	-	-	-		
Flexural strength	ISO 178	-	MPa	89	90	90	91	91
Flexural modulus				2500	2600	2600	2700	2700
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m <sup>2</sup>	280	250	200	150	100
Charpy notched impact strength		23 degC	kJ/m <sup>2</sup>	8.0	7.0	6.5	6.0	5.0
<b>Thermal properties</b>								
Melting temperature	ISO 11357-3		degC	166	166	166	166	166
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa 0.45MPa	degC	105	105	105	105	105
Coefficient of Linear thermal expansion	ISO 11359-2	MD TD	1/degC	1.1E-04 1.1E-04	1.1E-04 1.1E-04	1.1E-04 1.1E-04	1.1E-04 1.1E-04	1.1E-04 1.1E-04
Flammability	UL94	0.8mmt	-	HB	HB	HB	HB	HB
<b>Electrical properties</b>								
Relative permittivity	IEC 60250	100Hz	-	3.9	3.9	3.9	3.9	3.9
		1MHz	-	3.9	3.9	3.9	3.9	3.9
Dissipation factor	IEC 60250	100Hz	-	0.002	0.002	0.002	0.002	0.002
		1MHz	-	0.007	0.007	0.007	0.007	0.007
Volume resistivity	IEC 60093	-	ohm-m	1.E+12	1.E+12	1.E+12	1.E+12	1.E+12
Surface resistivity	IEC 60093	-	ohm	1.E+16	1.E+16	1.E+16	1.E+16	1.E+16
Electric strength	IEC 602431	1mmt	MV/m	32	32	32	32	32
		3mmt	-	19	19	19	19	19
Comparative tracking index	IEC 60112	-	-	600	600	600	600	600

The listed properties are portrayed as general information only and are not product specifications.  
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