



ISOPLAS PROPERTIES

PHYSICAL PROPERTY	TEST METHOD	UNITS	GRADE RANGE					
			P381	P471	P501	P651	P602	
MECHANICAL								
DENSITY	ISO 1183	g/cm ³	0.940	0.945	0.952	0.960	0.956	
TENSILE STRENGTH AT YIELD at 23°C at 100°C	ASTM D638	MPa	14.5	22.0	26.0 6.5	31.0 9.0	29.0	
ELONGATION AT BREAK	ASTM D638	%	480	200	200	70	350	
MODULUS OF ELASTICITY at -40°C at 0°C at +20°C	ASTM D638	MPa	1100	780	1400 1200 1000	2000 1500 1800	1750	
THERMAL								
MELT FLOW INDEX	ISO 1133 190/2.16 190/5	g/10 min	2.0	0.30	2.5	1.5	4.0 16.0	
VICAT SOFTENING POINT	ASTM D1525	°C	122	126	124	130	128	
SPECIFIC HEAT	ISO11357	kJ/kg.°C	1.9	2.0	2.1	2.1	2.0	
THERMAL CONDUCTIVITY	ASTM D5930	W/m.°C	0.43	0.43	0.46	0.46	0.43	
COEFFICIENT OF LINEAR EXPANSION at -20°C at +20°C at +100°C	ASTM D696	per °C		1.3 x 10 ⁻⁴	9.0 x 10 ⁻⁵ 1.4 x 10 ⁻⁴ 5.0 x 10 ⁻⁴	9.0 x 10 ⁻⁵ 1.4 x 10 ⁻⁴ 5.0 x 10 ⁻⁴	2.5 x 10 ⁻⁴	

APPLICATION AREA: P381 – Pipes for underfloor heating P471 – Composite metal/Isoplas pipes P602 – Injection mouldings
P501 – Pipes for Hot Sanitary Water P651 – Rigid pipes for District Heating Systems

Other ISOPLAS grades: Many modified formulations have been developed for specialist areas, eg conduit, sheet, film, liners, etc.

Micropol's Technical Department will be pleased to talk to you about your particular application area.

The information given above is typical of the material. It should only be used to compare one material with another and does not guarantee performance under end-use conditions.