



Tarnoform® 411			
POM			Grupa Azoty S.A.
Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	11.5	cm³/10min	ISO 1133
Temperature	190	°C	ISO 1133
Load	2.16	kg	ISO 1133
Molding shrinkage, parallel	2.0	%	ISO 294-4, 2577
Melt flow index, MFI	13	g/10min	ISO 1133
MFI temperature	190	°C	ISO 1133
MFI load	2.16	kg	ISO 1133
Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	3000	MPa	ISO 527-1/-2
Yield stress	65	MPa	ISO 527-1/-2
Yield strain	10	%	ISO 527-1/-2
Strain at break	30	%	ISO 527-1/-2
Charpy impact strength (+23°C)	170	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	6	kJ/m²	ISO 179/1eA
Flexural modulus (23°C)	2700	MPa	ISO 178
Izod Impact notched, 23°C	6	kJ/m²	ISO 180/1A
Ball indentation hardness	170	MPa	ISO 2039-1
Thermal properties	Value	Unit	Test Standard
ISO Data			
Melting temperature (10°C/min)	172	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	120	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	155	°C	ISO 306
Coeff. of linear therm. expansion, parallel	110	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	3.2	mm	IEC 60695-11-10
Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	3.8	-	IEC 60250
Volume resistivity	1E13	Ohm*m	IEC 60093
Surface resistivity	1E14	Ohm	IEC 60093
Electric strength	25	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112
Other properties	Value	Unit	Test Standard
ISO Data			
Water absorption	0.65	%	Sim. to ISO 62
Humidity absorption	0.2	%	Sim. to ISO 62
Density	1410	kg/m³	ISO 1183
Characteristics			
Processing	Features		
Injection Molding	Copolymer		
Delivery form	Applications		
Granules, Black, Natural Color	Automotive, Building Construction, Electrical and Electronical		