

Durethan[®] DP2801

PA66 FR(30)

Injection Molding, Unreinforced, Flame Retardant (halogen free), Heat Stabilized

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage (parallel)	1.14 / *	%	ISO 294-4
Molding shrinkage (normal)	1.22 / *	%	ISO 294-4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	3500 / 1400	MPa	ISO 527-1/-2
Nominal strain at break	10 / >50	%	ISO 527-1/-2
Yield stress	94 / 55	MPa	ISO 527-1/-2
Yield strain	4.2 / 20	%	ISO 527-1/-2
Flexural modulus	3200 / 1300	MPa	ISO 178
Flexural strength	127 / 49	MPa	ISO 178
Charpy impact strength (+23°C)	110 / N	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	120 / 185	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	<10 / 15	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	<10 / <10	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	<10 / 10	kJ/m ²	ISO 180/1A
THERMAL PROPERTIES			
	DRY / COND		
Melting temperature (10°C/min)	265 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	75 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	210 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.7 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.9 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10

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Thickness tested	1.5 / *	mm	IEC 60695-11-10
Burning Behav. at 3.0 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10
Burning Behav. at 0.75 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
Oxygen index	30 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index GWFI	960 / -	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	0.75 / -	mm	IEC 60695-2-12
Glow Wire Flammability Index GWFI	960 / -	°C	IEC 60695-2-12
GWFI (Thickness (2) tested)	1.5 / -	mm	IEC 60695-2-12
Glow Wire Ignition Temperature GWIT	775 / -	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	0.75 / -	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	775 / -	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	1.5 / -	mm	IEC 60695-2-13
<i>ELECTRICAL PROPERTIES</i>	<i>DRY / COND</i>		
Comparative tracking index	600 / -	V	IEC 60112
<i>OTHER PROPERTIES</i>	<i>DRY / COND</i>		
Density	1140 / -	kg/m³	ISO 1183
<i>MATERIAL SPECIFIC PROPERTIES</i>	<i>DRY / COND</i>		
Viscosity number	133 / *	cm³/g	ISO 307, 1157, 1628
<i>PROCESSING RECOMMENDATIONS</i>	<i>VALUE</i>		
Drying temperature dry air dryer	80	°C	
Drying time dry air dryer	2-6	h	
Residual moisture content	0.03-0.07	%	acc. to Karl Fischer

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Melt temperature (Tmin – Tmax)	260–270	°C	
Mold temperature	80–100	°C	
admissible residence time at Tmax	<5	min	