

# Durethan® A30SFN31

## PA66 FR(30)

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

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
<b>RHEOLOGICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Molding shrinkage (parallel)	1.1 / *	%	ISO 294-4
Molding shrinkage (normal)	1.1 / *	%	ISO 294-4
<b>MECHANICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Tensile modulus	3800 / 1500	MPa	ISO 527-1/-2
Yield stress	85 / 50	MPa	ISO 527-1/-2
Yield strain	4.1 / 20	%	ISO 527-1/-2
Flexural modulus	3700 / 1600	MPa	ISO 178
Flexural strength	125 / 55	MPa	ISO 178
Charpy impact strength (+23°C)	60 / N	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (-30°C)	50 / 80	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	<10 / <10	kJ/m <sup>2</sup>	ISO 179/1eA
<b>THERMAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Melting temperature (10°C/min)	260 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	80 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	212 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.8 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.7 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
Burning Behav. at 3.0 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Burning Behav. at 0.4 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.4 / *	mm	IEC 60695-11-10
Burning Behav. at 0.75 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
Oxygen index	34 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index GWFI	960 / -	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	0.4 / -	mm	IEC 60695-2-12
Glow Wire Flammability Index GWFI	960 / -	°C	IEC 60695-2-12
GWFI (Thickness (2) tested)	0.75 / -	mm	IEC 60695-2-12
Glow Wire Ignition Temperature GWIT	775 / -	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	0.4 / -	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	775 / -	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	0.75 / -	mm	IEC 60695-2-13

### *ELECTRICAL PROPERTIES*

#### *DRY / COND*

Relative permittivity (100Hz)	4 / 8	-	IEC 62631-2-1
Relative permittivity (1 MHz)	4 / 4	-	IEC 62631-2-1
Dissipation factor (100 Hz)	120 / 2000	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	190 / 550	E-4	IEC 62631-2-1
Volume resistivity	1E12 / 1E11	Ohm*m	IEC 62631-3-1
Surface resistivity	* / 1E13	Ohm	IEC 62631-3-2
Electric strength	30 / 25	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	V	IEC 60112

### *OTHER PROPERTIES*

#### *DRY / COND*

Water absorption	7.9 / *	%	Sim. to ISO 62
Humidity absorption	2.6 / *	%	Sim. to ISO 62
Density	1170 / -	kg/m³	ISO 1183

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
<b><i>PROCESSING RECOMMENDATIONS</i></b>			
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
Melt temperature (Tmin – Tmax)	260–270	°C	
Mold temperature	80–100	°C	