



LNP™ FARADEX™ Compound NS0031

Asia Pacific: COMMERCIAL

Faradex NS0031 is a compound based on PC+ABS blend resin containing non-brominated and non-chlorinated flame retardant system, Stainless Steel. Added features of this material include: EMI/RFI Shielding and ESD.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	620	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	580	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	3.4	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	3.7	%	ASTM D 638
Tensile Modulus, 5 mm/min	31800	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	970	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	30200	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	59	MPa	ISO 527
Tensile Stress, break, 5 mm/min	55	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3.2	%	ISO 527
Tensile Strain, break, 5 mm/min	4.4	%	ISO 527
Tensile Modulus, 1 mm/min	3000	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	102	MPa	ISO 178
Flexural Modulus, 2 mm/min	3090	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	69	cm-kgf/cm	ASTM D 4812
Izod Impact, unnotched, -30°C	59	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	5	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	4	cm-kgf/cm	ASTM D 256
Multiaxial Impact	76	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	1	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	39	kJ/m ²	ISO 180/1U



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
IMPACT			
Izod Impact, unnotched 80*10*4 -30°C	39	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	5	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	4	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	109	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	96	°C	ASTM D 648
CTE, -40°C to 40°C, flow	5.7E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.6E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	5.5E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.4E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	109	°C	ISO 306
Vicat Softening Temp, Rate B/120	112	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	98	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.33	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.59	%	SABIC Method
Melt Flow Rate, 280°C/5.0 kgf	12.3	g/10 min	ASTM D 1238
Density	1.33	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.2	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.1	%	ISO 62
Melt Volume Rate, MVR at 265°C/10.0 kg	31	cm ³ /10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	1.E+07	Ohm-cm	ASTM D 257
Surface Resistivity	1.E+05	Ohm	ASTM D 257
Static Decay, 5000V to <50V	0.01	< seconds	FTMS101B



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
ELECTRICAL Shielding Effectivness @ 3mm	47	dB	SABIC Method
FLAME CHARACTERISTICS UL Compliant, 94V-0 Flame Class Rating (3)(4)	1.5	mm	UL 94 by SABIC-IP



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	85 - 90	°C
Drying Time	3 - 4	hrs
Maximum Moisture Content	0.04	%
Melt Temperature	270 - 300	°C
Nozzle Temperature	265 - 300	°C
Front - Zone 3 Temperature	265 - 300	°C
Middle - Zone 2 Temperature	260 - 300	°C
Rear - Zone 1 Temperature	260 - 300	°C
Mold Temperature	60 - 90	°C
Back Pressure	4	MPa
Screw Speed	30 - 100	rpm