

Arnite[®] TV4 230 SF

PBT–GF15 FR(17)

15% Glass Reinforced, Flame Retardant, High Flow

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	VALUE		
Melt volume–flow rate	7	cm ³ /10min	ISO 1133
Temperature	250	°C	ISO 1133
Load	2.16	kg	ISO 1133
Molding shrinkage (normal)	1.2	%	ISO 294–4
Molding shrinkage (parallel)	0.9	%	ISO 294–4
MECHANICAL PROPERTIES			
	VALUE		
Tensile modulus	7000	MPa	ISO 527–1/–2
Stress at break	105	MPa	ISO 527–1/–2
Strain at break	2.9	%	ISO 527–1/–2
Flexural modulus	6600	MPa	ISO 178
Flexural strength	160	MPa	ISO 178
Charpy impact strength (+23°C)	35	kJ/m ²	ISO 179/1eU
Charpy impact strength (–30°C)	25	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	6	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (–30°C)	6	kJ/m ²	ISO 179/1eA
THERMAL PROPERTIES			
	VALUE		
Melting temperature (10°C/min)	225	°C	ISO 11357–1/–3
Temp. of deflection under load (1.80 MPa)	200	°C	ISO 75–1/–2
Temp. of deflection under load (0.45 MPa)	215	°C	ISO 75–1/–2
Coeff. of linear therm. expansion (parallel)	0.5	E–4/°C	ISO 11359–1/–2
Coeff. of linear therm. expansion (normal)	0.8	E–4/°C	ISO 11359–1/–2

Property Data

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Burning Behav. at 0.75 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	0.75	mm	IEC 60695-11-10
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
Glow Wire Flammability Index GWFI	960	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	1.5	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	725	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	1.5	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	800	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	0.75	mm	IEC 60695-2-13

ELECTRICAL PROPERTIES

VALUE

Relative permittivity (100Hz)	3.7	–	IEC 62631-2-1
Relative permittivity (1 MHz)	3.5	–	IEC 62631-2-1
Dissipation factor (100 Hz)	25	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	140	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Electric strength	28	kV/mm	IEC 60243-1
Comparative tracking index	250	V	IEC 60112
Comparative tracking index (PLC)	2	class	UL 746A

OTHER PROPERTIES

VALUE

Water absorption	0.3	%	Sim. to ISO 62
Humidity absorption	0.15	%	Sim. to ISO 62
Density	1560	kg/m ³	ISO 1183