Property Data

Envalior
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Stanyl® CR310

PA46–GF30 FR

30% Glass Reinforced, High Flow, Flame Retardant, Halogen free and free of red phosphorous

Print Date: 2024–09–18

Stanyl CR310 is a special V–0 grade which is mainly based on Nitrogen–based Flame Retardant Technology. It is a good flowing material which is especially suitable as arc quenching material in circuit breakers.

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES	**DRY / COND**		
Molding shrinkage (parallel)	0.4 / *	%	ISO 294–4
Molding shrinkage (normal)	1 / *	%	ISO 294–4
MECHANICAL PROPERTIES	**DRY / COND**		
Tensile modulus	12500 / 8000	MPa	ISO 527–1/–2
Stress at break	140 / 100	MPa	ISO 527–1/–2
Strain at break	1.7 / 2.5	%	ISO 527–1/–2
Flexural modulus	12500 / 8000	MPa	ISO 178
Charpy impact strength (+23°C)	35 / 40	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	9 / 9	kJ/m²	ISO 179/1eA
THERMAL PROPERTIES	**DRY / COND**		
Melting temperature (10°C/min)	295 / *	°C	ISO 11357–1/–3
Temp. of deflection under load (1.80 MPa)	290 / *	°C	ISO 75–1/–2
Temp. of deflection under load (0.45 MPa)	290 / *	°C	ISO 75–1/–2
Coeff. of linear therm. expansion (parallel)	0.35 / *	E–4/°C	ISO 11359–1/–2
Coeff. of linear therm. expansion (normal)	0.45 / *	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
UL recognition	Yes / *	–	–
Relative Temperature Index – electrical	65	°C	UL746B

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PROPERTIES	*TYPICAL DATA*	*UNIT*	*TEST METHOD*
RTI electrical (Thickness (1) tested)	0.75	mm	UL746B
ELECTRICAL PROPERTIES	***DRY / COND***		
Volume resistivity	>1E13 / 1E10	Ohm*m	IEC 62631–3–1
Electric strength	33 / 31	kV/mm	IEC 60243–1
Comparative tracking index	425 / –	V	IEC 60112
Relative permittivity (1 MHz)	4.1 / 4.9	–	IEC 62631–2–1
Relative permittivity (1GHz)	3.9 / 4.2	–	IEC 61189–2–721
OTHER PROPERTIES	***DRY / COND***		
Humidity absorption	1.8 / *	%	Sim. to ISO 62
Density	1530 / –	kg/m³	ISO 1183