Product data sheet SynTherm® HV-D Page 1 SynFlex Elektro GmbH Auf den Kreuzen 24 D-32825 Blomberg Germany Telefon +49-5235-968-0 E-Mail info@synflex.de



SynTherm® HV-D

SynTherm® HV-D is tailored for high voltage and power electronics applications. Excellent hydrolysis resistance and best in class CTI values together with excellent electrical properties are key benefits when using SynTherm® HV-D.

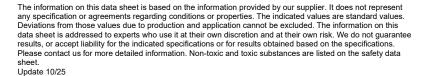
The trend towards higher system voltages increases the risk of short circuits and leakage currents, challenging engineers to develop reliable and safe solutions. When creepage distance is a critical factor, SynTherm® HV-D is an ideal solution to provide the required electrical safety.

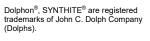
Properties

- Good flammability properties
- Excellent tracking resistance (IEC 60112:2020)
- Superior chemical resistance and hydrolyses resistance
- Ideal to combine with thermal interface material to increase creeping distance
- Available with adhesives or corona treatment for coatings

Application

- Battery Applications
- E-mobility Applications
- High-Voltage Inverter
- Power Electronics











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Mechanical	Unit	Test Method	SynTherm® HV-D	SynTherm® HV-D	SynTherm® HV-D	SynTherm® HV-D
Thickness	μm	DIN EN ISO 527	50	100	150	250
Tensile Strength MD	MPa	DIN EN ISO 527	55	55	55	55
Tensile Strength CD	MPa	DIN EN ISO 527	55	55	55	55
Elongation to Break MD	%	DIN EN ISO 527	450	500	500	550
Elongation to Break CD	%	DIN EN ISO 527	500	500	500	550
Electrical						
High Voltage Inclined Plane Tracking (IPT)		IEC 60587	tbd	tbd	tbd	Class 2A - 4,25 kV
Comparative Tracking Index (CTI)	V	IEC 60112:2 020	>=600	>=600	>=600	>=600
Dielectric Breakdown Voltage	kV	IEC 60674 - 2	tbd	17	21	29
Physical						
Flame Rating	-	ANSI VTM	tbd	VTM-0	VTM-0	VTM-0
Thermal conductivity	W/m K	C177	0,238	0,238	0,238	0,238
Basis Weight	g/m²	DIN EN ISO 536	87,5	175	262	437
Operating Temperature	°C	-	-50/150	-50/150	-50/150	-50/150
Max. temperature	°C	-	175 / <2h	175 / <2h	175 / <2h	175 / <2h

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