



wkt
PRESS TECHNOLOGIES



FIBRE REINFORCED
INSULATION SHEETS

WKT PRESS TECHNOLOGIES. KNOWLEDGE. INNOVATION. QUALITY.

Since 1994 the WKT group is specialised in solving technically demanding electrical and heat insulation challenges. We ensure that single components or complete buildings are protected effectively and long-lastingly against extreme high-voltage or thermal stresses.

In cooperation with our customers and based on more than 100 employees worldwide we develop high-quality fibre-reinforced plastics and manufacture laminated insulation sheets for diverse applications.

By use of the most-modern SMC-press systems we can offer sheets with a thickness of up to 130 mm in combination with a thickness tolerance of up to $\pm 0,1$ mm!

A professional material consultation, a high precision machining as well as a continuous quality control in the company-owned laboratory is a matter of course for the WKT group.

TYPICAL APPLICATIONS

- + Transformer industry
- + Railway technology
- + Switchgear industry
- + High-voltage industry

CHARACTERISTICS

- + Excellent electrical insulation properties
- + Tracking resistance: CTI 600
- + Heat resistance up to 155 °C
- + Fire protection acc. to. UL94 V0 and EN45545-2

PRODUCT	Unit	WKT 171	WKT 108	WKT 173	WKT 174	WKT 175
STANDARDS						
IEC 60893		UP GM 203	UP GM 203	UP GM 203	UP GM 204	UP GM 205
NEMA LI-1		GPO-3	GPO-3	GPO-3	---	---
DIN 7735		HM 2471	HM 2471	HM 2472	---	---
MECHANICAL CHARACTERISTICS						
Tensile strength //	MPa	70	70	110	150	200
Bending strength \perp	MPa	130	130	200	250	350
Compressive strength \perp	MPa	260	260	350	400	500
Modulus of elasticity	MPa	9000	9000	12000	16000	≥ 20000
THERMAL CHARACTERISTICS						
Heat resistance	°C	155	155	155	155	155
Thermal class		F	F	F	F	F
Thermal conductivity	W/mK	0,3	0,3	0,3	0,3	0,3
Coefficient of linear expansion	$10^{-6}/K^{-1}$	15 - 30	15 - 30	15 - 30	15 - 30	10 - 20
ELECTRICAL CHARACTERISTICS						
Dielectric strength \perp	KV/mm	13	13	13	13	13
Dielectric strength //	KV/25mm	70	70	70	65	65
Tracking resistance	CTI	600	600	600	600	600
MISC. CHARACTERISTICS						
Density	gr/cm ³	1,8	1,9	1,85	1,85 - 1,9	1,9 - 2,0
Flammability	UL 94	V0	V0	V0	V0	V0
Fire protection	EN 45545-2 R22, R23	---	HL 3	---	---	---
Water absorption	mg (D=4)	< 30	< 30	< 30	< 30	< 30
Halogen-free		Yes	Yes	Yes	Yes	Yes
Type of resin		UP	UP	UP	UP	UP
Type of reinforcement		Glass mats	Glass mats	Glass mats	Glass mats/roving	Glass mats/roving
Dimensions						
Thickness mm	2,0 - 80	2440 x 1220	2440 x 1220	2440 x 1220	2440 x 1220	2440 x 1220
	2,0 - 40	3720 x 1020	3720 x 1020	3720 x 1020	3720 x 1020	3720 x 1020
	40 - 130	2020 x 1020	2020 x 1020	2020 x 1020	2020 x 1020	2020 x 1020
Color		white, red	white	white, red	white, red	mintgreen

We are well prepared to cut the sheets to the required dimension upon request.



All measured values have been determined at room temperature. The indicated data describe average values (typical measuring values). The listed materials are compliant according to RoHS. The values are not legally binding so that we cannot accept any responsibility for their accuracy.

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