

Technical material data

Panel PF CP 202 EN 60893-3-4

HP 2061.5

CARRIER: paper webs
MATRIX: phenol-formaldehyde resin

MECHANICAL PROPERTIES	unit	test value	norm value
flexural strength	MPa	150-200	120
impact strength	kJ/m ²	20	-
notched impact strength (charpy) parallel to laminations	kJ/m ²	5	-
tensile strength	MPa	120-160	(100)
compressive strength parallel to laminations	MPa	150	-
compressive strength perpendicular to laminations	MPa	300-360	(300)
splitting force	N	2000	-
elasticity module bending test	MPa	7000-12000	(7000)
shear strength parallel to layer direction	MPa	30	(10)

ELECTRICAL PROPERTIES			
dielectric strength (1-minute test voltage) at 90°C in oil parallel to the layer direction	kV	55	60*
dielectric strength (1-minute test voltage) at 90°C in oil perpendicular to the layer direction	kV/mm	13.3	13
dissipation factor at 48-62 Hz	max.	0.05	0.05
permittivity at 48-62 Hz	max.	-	55
dielectric constant		5	-
tracking resistance	CTI	100-150	(100)

THERMAL PROPERTIES			
thermal conductivity	W/m*k	0.2	-
coefficient of elongation	10 ⁻⁶ /K	20-40	-
temperature limit	°C	120	(120)
limit determination of the threshold temperature due to flexural strength	MPa	65	-
thermal class		E	-
incandescence resistance	level	2b	-

OTHER PROPERTIES			
raw density	g/cm ³	1.3-1.4	(1.3-1.4)
water absorption at 3 mm thickness	mg	260	260

The values in () are specific values which are only noted for information; they cannot be seen as a requirement of this norm. The stated values are average values which are confirmed by regular statistical tests and controls. These data are pure representative information and may only lead by an explicit agreement to an assurance for a sales agreement. Directive 2011/65/EU of European Union on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) became operative as from the 27th of January, 2011. Following substances namely are involved: lead, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers, mercury. We herewith declare that all of our products were manufactured RoHS conformal. As downstream users (i.e., as manufacturer of products), we act in accordance with European Union Regulation 1907/2006 (the REACH Regulation). According to information provided to us by our suppliers, no substances from the latest Candidate List (the List of Substances of Very High Concern, or SVHC List) from the 15th of June, 2015 exist in the materials used by us in concentrations of more than 0.1 % by mass.

PROPERTIES

- good electrical and mechanical properties
- high voltage resistant up to 40 kV

APPLICATIONS

- components and insulation materials in high voltage engineering

* After preparation 96h at 105°C in air just before testing

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