

Trovidur® EC-N



Trovidur® EC-N is the name for extruded sheets of rigid PVC (PVC- unplasticized, PVC-U), containing no plasticizer and no fillers.

The sheets are produced from unplasticised moulding materials according to DIN EN ISO 1163-1.

They conform to the technical supply conditions (dimensions) of DIN EN ISO 11833-1.

The material corresponds to the following moulding compound:

DIN EN ISO 1163-1 - PVC-U, ECP, 074 - 05 – T28

characterizing features:

- high rigidity and strength compared with other thermoplastics
- normal impact strength
- typical surface for technical applications
- excellent chemical resistance
- can be welded and thermoformed
- easy processing
- self-extinguishing after removal of the flame

sizes and tolerances

size	: 2000mm x 1000mm; 2440mm x 1220mm; 3000mm x 1500mm
thickness	: 1 to 50 mm (size depending)
colour	: black 712; grey 7011; grey 6702; grey 231; white 182; orange 2003; red 250; green 6011 (size and thickness depending)
	other sizes, thicknesses and colours on request
tolerance of thickness	: $\pm (0,1 + 0,03 \cdot s)$, s = thickness [mm], according to DIN EN ISO 11833-1
tolerance of length /width	: acc. table 1 / DIN EN ISO 11833-1
colour	: colorspecifically

The semi-finished materials are free from blisters, voids and are perfectly homogenous.

Physical Properties

The physical data given in the table were determined on the test specimens under defined conditions and represent averages values from a relatively large number of measurements. The values measured on test specimens can't be used without restriction for a prediction of the properties of finished articles, since processing and shaping have an influence on the properties.

Property	Standard	Test method	Unit	Trovidur® EC-N
Mechanical Properties				
Density	ISO 1183	–	g/cm ³	≈ 1,44
Tensile stress at yield	DIN EN ISO 527	test specimen 1 B	N/mm ²	50
Elongation at break	DIN EN ISO 527	test specimen 1 B	%	20
Modulus of elasticity	ISO 527-2	test specimen 1 B	N/mm ²	2700
Compression strength	ISO 3605	–	N/mm ²	65
Notch impact strength at 23°C	DIN EN ISO 179	test specimen 1eA	kJ/m ²	4
Ball-pressure hardness	ISO 2039	H358/30	N/mm ²	110
Stress at 3,5% Strain	ISO 178		N/mm ²	≈ 70
Shore hardness D	DIN EN ISO 868			≈ 80
Thermal Properties				
Vicat softening temperature	DIN EN ISO 306	Method B 50	°C	73
Heat distortion temperature	DIN EN ISO 75	Method A	°C	≈ 65
Heat distortion temperature	DIN EN ISO 75	Method B	°C	≈ 70
Coefficient of linear expansion	DIN 53 752	20 to 60°C	K ⁻¹	≈ 70 · 10 ⁻⁶
Thermal conductivity at 20°C	DIN 52 616	–	W/(m · K)	0,16
Electrical properties				
Volume resistivity	DIN IEC 60093 VDE 0303-30	–	Ω · cm	> 10 ¹⁵
Surface resistivity	DIN IEC 60093 VDE 0303-30	–	Ω	> 10 ¹³
Glow wire test	IEC / DIN EN 60695-2-12	–		960 °C passed
Dielectric strength	IEC 60243	–	kV/mm	≥ 12
other properties				
Water absorption	ISO 62	–	%	0,2
WRAS	1709549	1 mm – 6 mm	grey 7011	listed
Temperature range for application	–	Classification	–	–20 to max. 60°C
Physiological indifference	–	–	–	no
Fire behaviour Class	DIN 4102 (D)	1 mm – 4 mm	–	B1
	UL 94 (USA)	1,0 mm min.thickness	(all colors)	V-0, 5VB
	UL 94 (USA)	3 mm min.thickness	(all colors)	V-0, 5VA
	BS 476 Part 7 and Part 6 (GB)	1,5 mm - 12 mm	–	Class 1 and Class 0
	NFP 92-501 (F)	1 mm - 10 mm	–	M1
	EN 13501-1	1,5 mm – 6 mm	–	B -s3, d0