

	APPLICATION / SPECIAL PROPERTIES	UNIT	TEST STANDARD		GRADE / DESIGNATION	
0	RESIN				PHENOLIC	
					PF 31 (DIN)	PF 2 A 1 (ISO)
1	REINFORCEMENT				Wood flour	
2	SPECIFIC GRAVITY	g/cm ³	ISO 1183	DIN 53479	1.34 - 1.45	
3	BULK DENSITY	g/cm ³	ISO 60	DIN 53466	0.5 - 0.7	
4	APPARENT DENSITY	g/ml		DIN 53568	≈ 0.6	
5	MOULD SHRINKAGE					
5a	COMPRESSION	%	ISO 2577	DIN 53464	0.5 - 0.8	
5b	INJ. LONGITUDINAL	%	ISO 2577	DIN 53464	1.0 - 1.5	
5c	INJ. TRANSVERSAL	%	ISO 2577	DIN 53464	0.8 - 1.4	
5d	AFTER SHRINKAGE	%	ISO 2577	DIN 53464	0.2 - 0.4	
6	FLEXURAL STRENGTH	N/mm ²	ISO 178	DIN 53452	70 - 100	
7	COMPRESSIVE STRENGTH	N/mm ²	ISO 604	DIN 53454	200 - 250	
8	TENSILE STRENGTH	N/mm ²	ISO 527	DIN 53455	50 - 70	
9	BALL INDENTATION HARDNESS	N/mm ²	DIN 53456		250 - 320	
10	FLEXURAL MODULUS OF ELASTICITY	KN/mm ²	ISO 178	DIN 53457	6 - 8	
11	RESISTANCE					
11a	IMPACT RESISTANCE	KJ/m ²	ISO 179	DIN 53453	6 - 8	
11b	NOTCHED IMPACT RESISTANCE	KJ/m ²	ISO 179	DIN 53453	1.5 - 2.0	
12	BALL INDENTATION HARDNESS	N/mm ²	DIN/ISO 2039		350 - 400	
13	HEAT DEFLECTION TEMPERATURE					
13a	MARTENS	°C	DIN 53462		125 - 155	
13b	HDT 0,45 N/mm ²	°C	ISO 75	DIN 53461	180 - 200	
13c	HDT 1,8 N/mm ²	°C	ISO 75	DIN 53461		

Properties of cured Duroplast

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0	RESIN				PHENOLIC
					PF 31 (DIN) PF 2 A 1 (ISO)
18	STRUCTURE				automatic granular, powder
19	DOSING				automatic
20	SURFACE RESISTANCE	Ω	IEC 93	DIN / VDE 0303 T 30	$1 \cdot 10^9$
21	VOLUME RESISTIVITY	$\Omega \cdot \text{cm}$	IRC 93	DIN / VDE 0303 T 30	$1 \cdot 10^{10}$
22	DIELECTRIC STRENGTH (1mm)	KV/mm	IEC 243-1	DIN / VDE 0303 T 21	30
23	DIELECTRIC CONSTANT	$\epsilon_r, 10^3 \text{ Hz}$	DIN 53483		6 - 9
24	DISSIPATION FACTOR	$\tan \delta, 10^3 \text{ Hz}$	DIN 53483		≤ 0.3
25	TRACKING RESISTANCE	CTI/CTI-M	DIN / IEC 112		125 / 150
26	INFLAMMABILITY	step/mm	IEC 707	UL 94	V - 0 / 3.2
27	WATER ABSORPTION (4d/23°C)	mg/%	ISO 62	DIN 53495	$< 150 / < 1.1$
28	ADDITIONAL CHARACTERISTICS				
29	PARTICULAR PROPERTIES				Standard compound for normal load
30	RANGE OF APPLICATIONS AND EXAMPLES				Mouldings of all kinds, from closures to large housings, wiring devices, handles, fittings, toaster side panels, iron handles, brake boosters
31	MEDIA RESISTANCE				
31a	WATER				①
31b	BOILING WATER				②
31c	ACID WEAK				②
31d	ACID STRONG				③
31e	ALKALIS WEAK				②
31f	ALKALIS STRONG				③
31g	ALCOHOL				①
31h	ESTERS				①
31i	ETHER				①
31j	BENZENE				①
31k	PETROL				①
31l	PETROLEUM				①
31m	FATS				①

① = almost complete resistance

② = limited resistance

③ = no resistance