Material Data Sheet

TECAVINYL PVC

Chemical Designation:	Polyvinylchloride
Abbreviation	PVC
Colours, Fillers	Grey, White, Red

	Dry/moist	Unit	Standard
Mechanical Properties			
Tensile strength at yield	55	MPa	DIN EN ISO 527
Elongation at yield	3	%	DIN EN ISO 527
Tensile strength at break		MPa	DIN EN ISO 527
Elongation at break	20	%	DIN EN ISO 527
Modulus of elasticity after tensile test	3100	MPa	DIN EN ISO 527
Modulus of elasticity after flexural test		MPa	DIN EN ISO 178
Hardness			DIN 53 456 (Ball indentation hardness)
Impact resistance (23 °C)		kJ/m^2	DIN EN ISO 179 (Charpy)
Noched impact strength	4	kJ/m^2	DIN EN ISO 179
Creep rupture strength after 1000 h with static load		MPa	-
Time yield limit for 1% elongation after 1000 h		MPa	-
Coefficient of friction P = 5 MPa, v = 2 m/min, linear, on steel, hardened and ground		-	-
Wear P = 5 MPa, v = 2 m/min, distance = 2400m linear, on steel, hardened and ground		%	-
Thermal Properties			
Melting point		°C	DIN 53 765
Glass transition temperature		°C	DIN 53 765
Heat distortion temperature HDT, Method A		°C	ISO-R 75 Verfahren A (DIN 53 461)
Heat distortion temperature HDT, Method B	72	°C	ISO-R 75 Verfahren B (DIN 53 461)
Service temperature, short term		°C	-
Service temperature, long term	60	°C	-
Thermal conductivity (23 °C)	0.16	W/(K*m)	-
Specific heat (23 °C)		J/(g*K)	-

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Thermal Properties			
Coefficient of thermal expansion (23 – 55 °C, longitudinal)	6-8	10^{-5}*1/K	ISO 11359-2 (old DIN 53 752)
Electrical Properties			
Dielectric constant (10^6 Hz)	3.2	-	DIN 53 483, IEC-250
Dielectric loss factor (10^6 Hz)		-	DIN 53 483, IEC-250
Specific volume resistance	>10^{15}	Ω*cm	DIN IEC 60093
Surface resistance	>10^{13}	Ω	DIN IEC 60093
Dielectric strength		kV/mm	DIN 53 481, VDE 0303 Part 2
Resistance to tracking		-	DIN 53 480, VDE 0303 Part 1
Miscellaneous Properties			
Viscosity number (solution 0,005 g/ml sulphuric acid)		ml/g	DIN EN ISO 1133
Melt flow index (MFI)		g/10 min	DIN 53 735
Density	1.47	g/cm^3	ISO 1183
Moisture absorption to equilibrium (23°C/50RH)		%	DIN EN ISO 62
Water absorption at saturation	0.2	%	DIN EN ISO 62
Flammability acc. to UL standard 94	VO		IEC 60695-11-10

The above information corresponds with our current knowledge and indicates our products and possible applications. We cannot give a legally binding guarantee of chemical resistance, of certain properties and the suitability of our products and their applications. Our products are not destined for use in medical and dental implants. Existing commercial patents must be observed. Unless otherwise stated, these values represent averages taken from injection moulding samples, dry as moulded. We reserve the right to make technical alterations.