

Terbrack Kunststoff GmbH & Co.KG

technical data sheet – product information

TEKALENT 500 R

short mark

HM-HDPE

properties: good sliding properties, good damping behavior,
dimensionally stable, acid and alkali resistant, non-toxic
no water absorption

For regenerated slight deviations of the technical values are possible!

color: black, green

physical properties

properties	test methods	units	results
molecular weight (average molecular weight)	-	g/mol	> 0,5*10 ⁶
density	ISO 1183	g/cm ³	0,95
water absorption	ISO 62	%	< 0,1
flame classification	UL94		HB

mechanical properties

yield stress	ISO 527	N/mm ²	~26
nominal strain at break (elongation at break)	ISO 527	%	~1000
modulus of elasticity	ISO 527	MPa	~1000
impact strength (Charpy)	ISO 179	kJ/m ²	without breakage
notched impact strength (Charpy)	ISO 11542-2	kJ/m ²	without breakage
ball hardness	ISO 2039-1	N/mm ²	~40
Shore D hardness of 15-s value	ISO 868	-	~60
dynamic coefficient of friction	-	μ	~0,1-0,2
wear (sand slurry)	-	μm/km	~0,45

thermal properties

melting temperature DSD 10K/min.	ISO 3146	°C	~135
vicat softening temperature	ISO 306	°C	~81
coefficient of thermal expansion between 23 °C and 80 °C.	ISO 11359	K ₋₁	ca. 2*10 ⁻⁴
thermal conductivity	ISO 52612	$\frac{W}{m \cdot K}$	~0,4
use temperature (max.)	-	°C	80
usage temperature short term	-	°C	120
use temperature (min.)	-	°C	-100

electrical properties

permittivity at 100Hz	IEC 60250	-	2,3 ⁷
dissipation factor at 100 Hz	IEC 60250	-	1,4*10 ⁻⁴
insulation resistance	IEC 60093	Ohm*m	< 10 ¹⁷
surface resistivity	IEC 60093	Ohm	10 ¹⁴
dielectric strength	IEC 60243	kV/mm	80

Notes for the user: The values given in this data sheet are based on a sheet with 40mm thickness. Depending on the thickness the technical values may vary during processing.

The technical data given in this sheet correspond to our current state of knowledge and should not be construed as an agreement or guarantee regarding certain properties of our products. The decision on the suitability of a particular material for a specific application is up to the user. We reserve the right to modify the given data.

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