Venslide 9GF (Lime Green UHMWPE)
Technical Data Sheet

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Product Description

Venslide 9GF, lime green UHMWPE made of a very high quality base resin & is renown for its unique properties of excellent strength and abrasion resistance. Small amount of fillers makes this unique grade of UHMWPE widely used in applications where a lot of abrasion and wear is present. This material is mainly used in a high traffic wear applications.

Applications

Venslide 9GF is ideally suited for the manufacture of high wear conveyor parts, such as wear plates and platforms. When in sheet form, it is best suited for wear applications especially in contact with high abrasion media. It is commonly used in industrial applications such as chute linings, automation and other machine parts and heavy traffic wear strips. Widely used in suction boxes, dewatering elements, paper manufacturing, profiles, foils, doctor blades and skimming strips.

Other Material Properties

This grade of polyethylene exhibits good combination of stiffness, toughness, mechanical damping ability with very high wear and abrasion resistance and can be filler welded for lining applications. Can be used in high abrasion and stick resistant liners.

Key Features and Benefits

- Very High Abrasion Resistance
- Low Coefficient of Friction
- Lightweight
- Excellent Retrofit for Protective Linings
- Adaptable to a wide variety of applications
- Good Impact Resistance
- Chemical Resistant
- Great Release, Non Stick Properties
- Can be cut, shaped, drilled, turned and tapped “on site” with ordinary woodworking tools.

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Technical Properties

	Value	Unit	DIN	ISO/EC
Molecular Weight	$9x10^6$	g/mol		
Code	1.1			15527:2013
Density	≤0.94	Kg/dm^3	53479	1183
Water Absoption – saturation at 23°C	<0,01	%	53715	

Mechanical Properties

	Value	Unit	DIN	ISO/EC
Yield/Break stress	~20	MPa	53455	527
Breaking elongation	>250	%	53455	527
Zug-E-Modul	>600	MPa	53457	
Notch impact Strength – Charpy	≥100	kJ/m^2	53453	179
Shore hardness D	62-65	°	868	7619-1
Ball hardness	>35	N/mm^2	53456	2039
Sand Slurry Test	80	%		15527
Coefficient of sliding friction Steel (0.25m/s, 0.25N/mm^2)	~0.2			
Coefficient of sliding friction POM (0.25m/s, 0.25N/mm^2)				

Electric Properties

	Value	Unit		Verification
Electrical strength	≤45	KV/mm	53481	60243
Specific constant resitance	$>10^{12}$	Ω x cm	53482	60093
Surface resistance	$>10^{12}$	Ω	53482	60093

Thermal Properties

	Value	Unit	DIN	ISO/EC
Melting point	130-135	°C		3146 method C
Heat conductivity 23°C	0.4	W (K x m)	52612	
Linear thermal coefficient of expansion α (average value between 23 and 60 °C)	$17x10^{-5}$	m/(K x m)	53752	11359-2
Upper service Termperature in air short term	90	°C		
Upper service Termperature in air constant (5000h)	80	°C	53446	
Lower service Termperature	-200	°C		
Burning behavior per UL94 – sample thickness 3/6mm	HB			

Physilogical properties

	Value	Unit	DIN	ISO/EC
Approved for use in food industry (FDA)	Yes			
Approved for use in food industry (EU)	No			

The values shown in the table, enable to compare materials faster. Thee values are short-term values, which can be influcenced by processing, environmental as well as application conditions. Therefore, these vaues do not represent assured properties. It is due to the customer's responsibility whether the chosen material is suitable for its specific application.