



PE9000 GF Sheet Pressed & Planed / Lime Green

PE9000-GF, this material achieves a very low abrasion and considerably extended durability due to the addition of micro-glass beads.

product information

Name:	Polyethylene 9000 Glass Filled
Other names:	Tivar Ceram P
Abbreviation:	PE9000 GF, UHMWPE GF

key characteristics

- » Sliding property
- » Incorporates micro-glass beads
- » Impact strength
- » Low water absorption
- » Extended durability
- » Chemical resistance
- » Low abrasion

applications

- » Dewatering elements, low vacuum foils and forming boards
- » Conveying slide elements
- » Chain and belt running guides
- » Paper industry
- » Bulk material handling industry
- » Conveying and packaging industry

this document contains

- » Technical Datasheet (Page 1)
- » Chemical Datasheet (Page 2)
- » Safety Datasheet (Page 3)

For any further information regarding food, fire and water certificates then please contact the sales team on 0116 232 1010



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technical properties

Physical Properties	Test	Unit	Result
1. Specific gravity	ISO 1183	g/cm ³	0.96
2. Water absorption	ISO 62	%	<0.01
3. Maximum service temp. Upper temp limit (no stronger mechanical stress involved)	-	°C	80
Lower temp limit	-	°C	-200

Mechanical Properties	Test	Unit	Result
1. Tensile strength at yield	ISO 527	MPa	>17
2. Elongation at yield	ISO 527	%	-
3. Tensile strength at break	ISO 527	MPa	-
4. Elongation at break	ISO 527	%	>350
5. Impact strength	ISO 179	kJ/m ²	no break
6. Notch impact strength	ISO 179	kJ/m ²	
7. Ball indentation / Rockwell hardness	ISO 2039-1	MPa	42
8. Shore-D	DIN 53505	-	65
9. Flexural strength	ISO 178	MPa	-
10. Modulus of elasticity	ISO 527	MPa	700

Thermal Properties	Test Method	Unit	Result
1. Vicat-softening point VST/B/50	ISO 306	°C	-
2. Heat deflection temperature HDT/B	ISO 75	°C	-
HDT/A	-	°C	-
3. Coefficient of linear thermal expansion	DIN 53752	k ⁻¹ *10 ⁻⁴	2
4. Thermal conductivity at 20 °C	DIN 52612	W/(m*K)	0.4

Electrical Properties	Test Method	Unit	Result
1. Volume resistivity	VDE 0303	Ω x m	10 ¹²
2. Surface resistivity	-	Ω	10 ¹²
3. Dielectric constant at 1MHz	-	-	-
4. Dielectric loss factor at 1 MHz	DIN 53483	-	-
5. Dielectric strength	VDE 0303	kV/mm	-
6. Tracking resistance	IEC 60112	-	-

Additional Data	Test Method	Unit	Result
1. Bondability	-	-	-
2. Food compliance	FDA	-	-
3. Flammability	UL 94	-	HB

Key:

Yes	Limited	No or no data
+	o	-

All The above information is for guide purposes only. The data has been taken from standard test results provided by our manufacturers.

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chemical properties

Agent	Conc %	Working Temp	
		20°C	60°C
Acetic Acid	100	+	
Acetone	100	+	+/o
Ammonia	Conc.	+	+
Ammonium chloride		+	+
Amyl Alcohol		+	+
Benzene		+	+/o
Bleaching Solution	12,5 Cl		
Boric Acid	100	+	+
Brake Fluid		+	+
Butyl Acetate		+	
Calcium Chloride		+	+
Carbon disulphide	100		
Carbon Tetrachloride			
Chlorine, gas	100		
Chlorobenzene	100		
Chloroform			
Citric Acid	10	+	+
Cresol		+	+
Cyclohexanone	100	+	
Cyclohexene	100	+	+
Diesel Fuel		+	+
Ethyl acetate	100	+	
Ethyl alcohol	96	+	+
Ethylene Chloride	100		
Formic Acid	10	+	+
Frost protection agent		+	+
Fuel, aromatic free		+	+
Glycerine	100	+	+
Glycol	100	+	+
Heating oil		+	+
Heptane	100	-	-
Hydrochloric acid	10	+	+
Hydrochloric acid	Conc.	+	+

Agent	Conc %	Working Temp	
		20°C	60°C
Hydrofluoric acid	40	+	o
Hydrogen peroxide	10	+	+
Hydrogen Sulphide		+	
Isopropyl Alcohol	100	+	+
Mercurochrome		+	
Methyl alcohol	100	+	+
Methyl ethyl ketone	100	+	
Methylene chloride	100	o/-	-
Nitric acid	10	+	+
Nitric acid	50	o	o/-
Nitrobenzine		+	
Oxalic Acid		+	+
Ozone, gas	ca. 0,5 ppm	+/o	-
Paraffin Oil	100	+	+
Perchlorethylene		o	-
Petroleum	100	+	o
Petroleum, aromatic free	100		
Phenol, aqu	ca.9	+	+
Phosphoric Acid	50	+	+
Potassium hydroxide liquor	50	+	+
Propyl alcohol		+	+
Pyridine		+	
Silicone oil		+	+
Sodium carbonate. aqu		+	+
Sodium chloride, aqu		+	+
Sodium Hydroxide liquor	60	+	+
Sodium hydrogen sulphite		+	+
Sodium nitrate, aqu		+	+
Sodium thiosulfate		+	+
Sulphuric Acid	96	o	-
Tetrahydrofurance	100		
Toluene	100		
Trichlorethylene	100	-	-
Xylene		-	-

Key:

Resistant	Partly Resistant	Non-Resistant
+	o	-

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safety properties

Substance/preparation and Company detail

PE9000 GF

Oadby Plastics
68 Scudamore Road,
Braunstone Frith Industrial Estate,
Leicester,
LE3 1UA
0116 232 1010

Physical and chemical characteristics

Form: Solid
Colour: Black
Smell: not applicable
Density: 0,95 ... 0,96 g/cm³
Melting range: 100o ... 140°C
Thermal decomposition: ≥300°C
Auto-ignition temperature: ≥300°C

Handling and storage

Handling: The product can be machined with usual machines and tools. Prior machining make sure the product is at room temperature. Storage recommendations: Horizontal, dry, protected against weather influences.

Transport information

Hazardous goods regulation: This product is considered as non-hazardous
Loads securing on roads: DIN EN 12195-1 has to be considered and fulfilled
Labelling obligation: the product is not subject to labelling according current EC regulations or other known sources of literature.
Particular national regulations: None

First-aid measures

General information: No special measures required.
Inhalation: **Provide fresh air;** seek medical attention if symptoms develop or persist.
Skin contact: Wash affected area with soap and water.
Eye contact: Flush eyes with water for several minutes, while holding the eyelid open. Seek medical attention if symptoms develop or persist.
Swallowing: Seek medical attention if symptoms develop or persist.

Fire-fighting measures

Suitable extinguishing agents: water, foam, dry powder, carbon dioxide.
Possible combustion products: Carbon monoxide and carbon dioxide can be released during combustion.
Necessary productive equipment: Complete protective equipment for fire fighters, use self-contained breathing apparatus.

Waste-disposal information

Recommendation: Consider recycling.
Contaminated material: Disposal according to the applicable regulations.

Toxic information

Particular hazard for human and environment: none

Regulations

According to the regulation (EC) no. 1907/2006, safety data sheets must be provided for hazardous substances and preparations. According to regulation (EC) no. 1907/2006, our products are considered as articles for which no safety data sheet is requested

Further information

The information is based on our current knowledge. They are meant to describe our products in respect to safety requirements. They do not represent any guarantee of the described product in the sense of the legal guarantee regulations.