PE2000C - Ceram PE

Other material names PE2000C: PE-UHMW with micro glas beads, Mikroglaskugeln
Material group: Polyethylene

For high load, high speed and severe sliding abrasion applications, PE2000C should be THE material of choice. Its high tensile strength and wear resistance have been successful in the lumber, paper, steel and agricultural industries. Composed of virgin polymer and premium additives, PE2000C is a shatter-resistant alternative to sintered ceramics, reducing parts wear and machine maintenance downtime.

Easily recognizable by the lime-green color. PE2000C does not meet FDA or USDA guidelines for food handling/processing.

Color of material:

Yellow-green

Typical applications:

- Agriculture
- Lumber processing
- Material handling
- Pulp & paper mills
- Steel mills

The material is used in:

Food industry
Automobile industry

Features:

- High load, High-speed, abrasive applications
- Reduces noise
- Self-lubricating
- Wear-resistant
- Corrosion-resistant
- No moisture absorption

Material availability: Some sizes are in stock

Material properties table

Specific weight	0.95 g/cm³
Yield strength	17 N/mm²
Tensile strength	38 N/mm²
p.v dry limit	0.08 MPa.m/s

Flexural strength	22 N/mm²
Tensibility	350 %
Flexural modulus	752 N/mm²
Tensile modulus	700 N/mm²
Impact toughness	bez zlomu
Notched toughness	>120 kJ/m²
Ball hardness	40 N/mm²
Friction coefficient	0.12
Sliding wear	0.03 um/km
Abrasive wear	80
Antistatic material	No
Permittivity	2.10
Electrical strength	45 kV/mm
Specific internal resistance	10^(12) Ω
Specific surface resistance	10^(12) Ω.cm
Melting point	138 °C
Thermal expansion	20 10^(-5)/K
Thermal conductivity	0.40 W/(K.m)
Permanent use temperature	-200 ; 80 °C
Transient temperature of use	-200 ; 90 °C
Absorbability	0,01 %
Water absorption	0,1 %
Resistance - oils	resistant
Acid resistance	resistant
Durability - alcali	resistant
Food contact	No

Engineering plastics are supplied in the form of bars, plates, strips, tubes and sheets. From the semi-finished products the company TechPlasty has regularly in stock, we also supply blanks.

All standard and special materials are designed to meet your specific requirements. Their mechanical, thermal, and electrical properties and chemical resistance satisfy the most demanding requirements and this allows them to work even in the most difficult conditions. If you need advice when choosing the appropriate material for your application, please contact us. We'll gladly advise you. You can utilize the long-term experience of our technical advisors free-of- charge, who can visit you right in your operation and solve your requirements for engineering plastics directly at the site of their usage.

TechPlasty, s.r.o.
Kysucká 7/A
010 01 Žilina
Slovakia