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Technical Data Sheet

In the following, the typical physical properties of a material developed by Eisenhuth GmbH & Co. KG, made of a graphite-polymer composite material (compound), are listed below.

Material: Melange5

Identification No.: 01-03-03-82-82-0-0-0

Polymer: Polyvinylidene fluoride (PVDF)

Physical Properties (Typical Values):

Property	Unit	Value
Density	$\text{g}\cdot\text{cm}^{-3}$	2.1
Flexural Strength ^A	$\text{N}\cdot\text{mm}^{-2}$	36
Flexural Modulus ^A	$\text{N}\cdot\text{mm}^{-2}$	11000
Tensile Strength ^B	$\text{N}\cdot\text{mm}^{-2}$	-
Tensile Modulus ^B	$\text{N}\cdot\text{mm}^{-2}$	-
Fracture Elongation ^{A, B}	%	0.3
Thermal Conductivity ^C	$\text{W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$	22
Thermal Expansion Coefficient ^D	$\text{K}^{-1}\cdot 10^{-6}$	100
Specific Electrical Resistance ^E	$\Omega\cdot\text{cm}$	0.007
Specific Electrical Resistance ^F	$\Omega\cdot\text{cm}$	0.200
Electrical Resistance ^E	$\text{m}\Omega$	5
Recommended maximal Operating Temperature ^G	$^{\circ}\text{C}$	<150

A According to DIN EN ISO 178

B According to ISO 572

C By 25°C Through-Plane

D According to ISO 11359-2 Through-Plane

E By 25°C In-Plane

F Vertical to the panel plane at a contact pressure of 2.5N/cm²

G Derived from heat deflection temperature according to ISO 75-2

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