

Features

- Impact resistance
- High reusability
- Excellent toughness
- Heat deformation resistance

Application

- Thermal load environment
- Parts with good mechanical properties

Specification

Mechanical properties	Test method	Metric
Part Color	Visual	Natural White or Black
Density	DIN 53466	0.96g/cm ³
Elongation at break	ASTM D638	45%
Flexural Strength	ASTM D790	45 MPa
Flexural Modulus	ASTM D790	1,200 MPa
Heat Deflection Temperature 0.45Mpa	ASTM D648	193 °C
Heat Deflection Temperature 1.82Mpa	ASTM D648	64°C
Tensile Strength	ASTM D638	47 MPa
Tensile Modulus	ASTM D638	1,550 MPa
IZOD Impact Strength with notch	ASTM D256	85 J/M
IZOD Impact Strength without notch	ASTM D256	No rupture occurred

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Features

- Size Accuracy
- High Strength
- High reuse rate

Application

- Complicated Structure
- Food Container
- Medical Instruments

Specification

Mechanical properties	Test method	Metric
Part Color	Visual	White
Density	DIN 53466	0.95g/cm ³
Elongation at break	ASTM D638	8-15%
Flexural Strength	ASTM D790	47 MPa
Flexural Modulus	ASTM D7S9	1,700 MPa
Heat Deflection Temperature 0.45Mpa	ASTM D648	167°C
Heat Dedflection Temperature 1.82Mpa	ASTM D648	58°C
Tensile Strength	ASTM D638	46 MPa
Tensile Modulus	ASTM D638	1,700 MPa
IZOD Impact Strength with notch	ASTM D256	51 J/M
IZOD Impact Strength without notch	ASTM D256	338 J/M

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Features

- Material passes UL94 V0@1.6mm
- Best surface & accuracy finish of available fire retardant materials

Application

- Aerospace applications requiring excellent mechanical strength
- Wire insulation
- Cable sheath
- Parts around the vehicle engine

Specification

Mechanical properties	Test method	Metric
Part Color	Visual	Light Yellow
Density	DIN 53466	N/A g/cm ³
Elongation at break	ASTM D638	12-13%
Flexural Strength	ASTM D790	71 MPa
Flexural Modulus	ASTM D790	1,800 MPa
Heat Deflection Temperature 0.45Mpa	ASTM D648	182°C
Heat Dedflection Temperature 1.82Mpa	ASTM D648	150°C
Tensile Strength	ASTM D638	46 MPa
Tensile Modulus	ASTM D638	1,800 MPa
IZOD Impact Strength with notch	ASTM D256	23 J/M
IZOD Impact Strength without notch	ASTM D256	230 J/M

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Features

- Material passes UL94 V0
- Best surface & accuracy finish of available fire retardant materials
- Accurate size

Application

- Aerospace applications requiring excellent mechanical strength
- Wire insulation
- Parts around the vehicle engine

Specification

Mechanical properties	Test method	Metric
Part Color	Visual	Ash Black
Density	DIN 53466	0.24 g/cm ³
Elongation at break	ASTM D638	10 %
Flexural Strength	ASTM D790	53 MPa
Flexural Modulus	ASTM D790	1,462 MPa
Heat Deflection Temperature 0.45Mpa	ASTM D648	188 °C
Heat Dedflection Temperature 1.82Mpa	ASTM D648	120 °C
Tensile Strength	ASTM D638	38 MPa
Tensile Modulus	ASTM D638	2,077 MPa
IZOD Impact Strength with notch	ASTM D256	30 J/M
IZOD Impact Strength without notch	ASTM D256	221 J/M

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Features

- High strength
- 40% aluminum powder
- Metal color
- Wear resistance
- High reusability

Application

- Products with metal texture
- Thermal load environment
- Parts with good mechanical properties are required

Specification

Mechanical properties	Test method	Metric
Part Color	Visual	Metallic Grey
Density	DIN 53466	1.36g/cm ³
Elongation at break	ASTM D638	1.5-3.5%
Flexural Strength	ASTM D790	54 MPa
Flexural Modulus	ASTM D790	1,994 MPa
Heat Deflection Temperature 0.45Mpa	ASTM D648	167°C
Heat Deflection Temperature 1.82Mpa	ASTM D648	127°C
Tensile Strength	ASTM D638	32 MPa
Tensile Modulus	ASTM D638	1,700 MPa
IZOD Impact Strength with notch	ASTM D256	35 J/M
IZOD Impact Strength without notch	ASTM D256	241 J/m

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Features

- Carbon fiber reinforced
- 15% of carbon fiber
- Wear and heat resistance
- High strength

Application

- Automotive engine assembly
- High rigidity requirements
- Wear-resisting assembly
- Tools

Specification

Mechanical properties	Test method	Metric
Part Color	Visual	Ash Black
Density	DIN 53466	-/cm ³
Elongation at break	ASTM D638	11-15%
Flexural Strength	ASTM D790	53 MPa
Flexural Modulus	ASTM D790	1,500 MPa
Heat Deflection Temperature 0.45Mpa	ASTM D648	179 °C
Heat Deflection Temperature 1.82Mpa	ASTM D648	129°C
Tensile Strength	ASTM D638	59 MPa
Tensile Modulus	ASTM D638	2,300 MPa
IZOD Impact Strength with notch	ASTM D256	48 J/M
IZOD Impact Strength without notch	ASTM D256	237 J/M

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Features

- High strength
- 40% of glass
- Precise dimension
- High reusability

Application

- Structural Part
- High rigidity requirements
- Wear-resisting assembly
- Tools

Specification

Mechanical properties	Test method	Metric
Part Color	Visual	Grayish Yellow
Density	DIN 53466	-/cm ³
Elongation at break	ASTM D638	10.37%
Flexural Strength	ASTM D790	48.1 MPa
Flexural Modulus	ASTM D790	1,682 MPa
Heat Deflection Temperature 0.45Mpa	ASTM D648	177 °C
Heat Deflection Temperature 1.82Mpa	ASTM D648	121 °C
Tensile Strength	ASTM D638	41.6 MPa
Tensile Modulus	ASTM D638	2085.9 MPa
IZOD Impact Strength with notch	ASTM D256	39 J/M
IZOD Impact Strength without notch	ASTM D256	298 J/M

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Features

- Good comprehensive performance
- Stable color
- Accurate size
- High reusability

Application

- Structural parts
- Functional shells
- Complex assemblies
- Cultural and creative products
- Drones

Specification

Mechanical properties	Test method	Metric
Part Color	Visual	Bright White or Black
Density	DIN 53466	0.95g/cm ³
Elongation at break	ASTM D638	8-15%
Flexural Strength	ASTM D790	50 MPa
Flexural Modulus	ASTM D790	1,300 MPa
Heat Deflection Temperature 0.45Mpa	ASTM D648	179°C
Heat Deflection Temperature 1.82Mpa	ASTM D648	99°C
Tensile Strength	ASTM D638	46 MPa
Tensile Modulus	ASTM D638	1,800 MPa
IZOD Impact Strength with notch	ASTM D256	40 J/M
IZOD Impact Strength without notch	ASTM D256	350 J/M

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Features

- High strength
- 30% glass
- Heat deformation resistance
- High reusability

Application

- High rigidity requirements
- Wearing and wear-resistant environment
- High temperature working conditions

Specification

Mechanical properties	Test method	Metric
Part Color	Visual	Grayish Yellow or Ash Black
Density	DIN 53466	1.26g/cm ³
Elongation at break	ASTM D638	5-8%
Flexural Strength	ASTM D790	71 MPa
Flexural Modulus	ASTM D790	2,241 MPa
Heat Deflection Temperature 0.45Mpa	ASTM D648	184.4 °C
Heat Deflection Temperature 1.82Mpa	ASTM D648	126°C
Tensile Strength	ASTM D638	32 MPa
Tensile Modulus	ASTM D638	2,398 MPa
IZOD Impact Strength with notch	ASTM D256	29 J/M
IZOD Impact Strength without notch	ASTM D256	264 J/M

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Features

- Size Accuracy
- High Strength
- High Reuse Rate
- Better Toughness

Application

- Complicated Structure
- Food Container
- Medical Instruments
- Wear-Resisting Assembly

Specification

Mechanical properties	Test method	Metric
Part Color	Visual	Ash Black
Density	DIN 53466	- g/cm ³
Elongation at break	ASTM D638	19 %
Flexural Strength	ASTM D790	54 MPa
Flexural Modulus	ASTM D7S9	1,400 MPa
Heat Deflection Temperature 0.45Mpa	ASTM D648	180 °C
Heat Dedflection Temperature 1.82Mpa	ASTM D648	137 °C
Tensile Strength	ASTM D638	48 MPa
Tensile Modulus	ASTM D638	1,500 MPa
IZOD Impact Strength with notch	ASTM D256	40 J/M
IZOD Impact Strength without notch	ASTM D256	426 J/M

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Features

- High strength
- 40% of glass
- Precise dimension
- High reusability

Application

- Structural Part
- High rigidity requirements
- Wear-resisting assembly
- Tools

Specification

Mechanical properties	Test method	Metric
Part Color	Visual	Grayish Yellow
Density	DIN 53466	-/cm ³
Elongation at break	ASTM D638	11 %
Flexural Strength	ASTM D790	65 MPa
Flexural Modulus	ASTM D790	2,500 MPa
Heat Deflection Temperature 0.45Mpa	ASTM D648	179 °C
Heat Deflection Temperature 1.82Mpa	ASTM D648	150 °C
Tensile Strength	ASTM D638	44 MPa
Tensile Modulus	ASTM D638	1700 MPa
IZOD Impact Strength with notch	ASTM D256	46 J/M
IZOD Impact Strength without notch	ASTM D256	300 J/M

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Features

- High strength
- 30% of aluminum
- Wear resistance
- High reusability

Application

- Structural Part
- High rigidity requirements
- Wear-resisting assembly
- Parts with good mechanical properties

Specification

Mechanical properties	Test method	Metric
Part Color	Visual	Ash Black
Density	DIN 53466	1.19/cm ³
Elongation at break	ASTM D638	12 %
Flexural Strength	ASTM D790	60 MPa
Flexural Modulus	ASTM D790	2,000 MPa
Heat Deflection Temperature 0.45Mpa	ASTM D648	185 °C
Heat Deflection Temperature 1.82Mpa	ASTM D648	160 °C
Tensile Strength	ASTM D638	43 MPa
Tensile Modulus	ASTM D638	1,800 MPa
IZOD Impact Strength with notch	ASTM D256	27 J/M
IZOD Impact Strength without notch	ASTM D256	230 J/M

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Features

- Carbon fiber reinforced
- 15% of carbon fiber
- Wear and heat resistance
- High strength

Application

- Automotive engine assembly
- High rigidity requirements
- Wear-resisting assembly
- Tools

Specification

Mechanical properties	Test method	Metric
Part Color	Visual	Ash Black
Density	DIN 53466	-/cm ³
Elongation at break	ASTM D638	15%
Flexural Strength	ASTM D790	98 MPa
Flexural Modulus	ASTM D790	2,954 MPa
Heat Deflection Temperature 0.45Mpa	ASTM D648	186 °C
Heat Deflection Temperature 1.82Mpa	ASTM D648	183 °C
Tensile Strength	ASTM D638	70 MPa
Tensile Modulus	ASTM D638	2,100 MPa
IZOD Impact Strength with notch	ASTM D256	77 J/M
IZOD Impact Strength without notch	ASTM D256	370 J/M

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Features

- High strength
- 40% of glass
- Precise dimension
- High reusability

Application

- Structural Part
- High rigidity requirements
- Wear-resisting assembly
- Tools

Specification

Mechanical properties	Test method	Metric
Part Color	Visual	Ash Black
Density	DIN 53466	-/cm ³
Elongation at break	ASTM D638	13.3 %
Flexural Strength	ASTM D790	65 MPa
Flexural Modulus	ASTM D790	1,929 MPa
Heat Deflection Temperature 0.45Mpa	ASTM D648	176 °C
Heat Deflection Temperature 1.82Mpa	ASTM D648	155 °C
Tensile Strength	ASTM D638	44.3 MPa
Tensile Modulus	ASTM D638	1,537 MPa
IZOD Impact Strength with notch	ASTM D256	59 J/M
IZOD Impact Strength without notch	ASTM D256	280 J/M

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Features

- High strength
- 50% of glass
- Precise dimension
- High reusability

Application

- Structural Part
- High rigidity requirements
- Wear-resisting assembly
- Tools

Specification

Mechanical properties	Test method	Metric
Part Color	Visual	Ash Black
Density	DIN 53466	-/cm ³
Elongation at break	ASTM D638	14.6 %
Flexural Strength	ASTM D790	59 MPa
Flexural Modulus	ASTM D790	2,872.5 MPa
Heat Deflection Temperature 0.45Mpa	ASTM D648	183 °C
Heat Deflection Temperature 1.82Mpa	ASTM D648	163 °C
Tensile Strength	ASTM D638	47.4 MPa
Tensile Modulus	ASTM D638	1,739.1 MPa
IZOD Impact Strength with notch	ASTM D256	56 J/M
IZOD Impact Strength without notch	ASTM D256	212 J/M

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Features

- Softness, Elastic material
- Impact resistance
- Good vibration damping performance
- High reusability
- Heat resistance
- Mildew resistance and water resistance

Application

- Seal washers
- Automobile vibration damping parts and buffer isolation
- Soft protectors
- Sports insoles
- Scenes requiring high surface ductility.

Specification

Mechanical properties	Test method	Metric
Part Density	ASTM D1505	1.21g/cm ³
Build Powder Density	ASTM D1895	0.5g/cm ³
Part Color	Visual	Natural Color
Tensile Elongation	ASTM D638	> 350%
Particle Size D50	ASTM D328	65 μm
Tensile Strength	ASTM D638	20 MPa
Shore Hardness	ASTM D2240	85~90A
Melting Point	DSC	160-170°C

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Features

- Softness、 Elastic material
- Impact resistance
- Good vibration damping performance
- High reusability
- Heat resistance
- Mildew resistance and water resistance

Application

- Seal washers
- Automobile vibration damping parts and buffer isolation
- Soft protectors
- Sports insoles
- Scenes requiring high surface ductility

Specification

Physical Properties	Test Method	Metric
Bulk Density	ASTM D1505	0.457g/cm ³
Part bed powder density	ASTM D1895	0.6g/cm ³
Part Color	Visual	White
Part Density	ISO 1183	1.2 g/cm
Water Absorption	23°C, 24h,	< 0.5%
Shore Hardness A	ISO 868	88
Flexural Modulus 20°C	ISO 6721-1	72 MPa
Flexural Modulus 60°C	ISO 6721-1	27 MPa
Tensile Strenght (x-direction)	DIN 53504	20 MPa
Elongation (x-direction)	DIN 53504	267%
Abrasion Resistance	ISO 4649	31 mm
Compression Stength (x-direction)	ISO 604	33 MPa
Compression Modulus(x-direction)	ISO 604	15 MPa
Vicat-softening Temperature VST A	ISO 306	90°C
Melting Temperature	ISO 11357	160°C
Powder Properties X10	Laser diff	20 μm
Powder Properties X50	Laser diff	50 μm
Powder Properties X90	Laser diff	105 μm

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Features

- Softness, elastic material
- Impact resistance

Application

- Soft protective tools
- Sports insoles

Specification

Mechanical properties	Test method	Metric
Part Density	ASTM D 792	1.15g/cm ³
Build Powder Density	GB/T 20316	0.47g/cm ³
Part Color	Visual	Natural White
Glass-Transition Temperature	ASTM D 3417	- 25°C
Tear Strength	ASTM D 624	101 N/mm
Tensile Elongation	ASTM D 412	> 310%
Particle Size D50	ASTM D 328	60 μm
Tensile Strength	ASTM D 412	21 MPa
Shore Hardness	ASTM D 2240	95
Melting Point	DSC	165°C

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