

LET'S MANUFACTURE TOMORROW



**ARNITEL®
ID2060 HT**

ARNITEL® ID2060 HT

Arnitel® ID2060 HT is a new high-performance thermoplastic copolyester (TPC) for 3D printing using fused filament fabrication (FFF). This 100% recyclable filament is the first to offer a unique balance of extreme flexibility and prolonged high temperature resistance for printing demanding industrial and end-use applications.

Arnitel® ID2060 HT is the first high performance TPC FFF material combining extremely high flexibility with prolonged high temperature resistance and strength. This combination makes it suitable for a wide range of industrial applications, from automotive air-fuel management components to end-of-arm tooling for food processing. Parts printed can resist prolonged high-temperature of 175°C (1000 hrs) or 190°C (500 hrs), chemicals such as EGR fumes or UV. The soft and flexible material combines easy printing with excellent interlayer adhesion due to its slower crystallization behavior.

Tested

DSM Additive Manufacturing collaborated with equipment partners to extensively test Arnitel® ID2060 HT, offering customers fully proven materials for open 3D printing platforms. Tests have been conducted on Ultimaker and GermanRepRap FFF printers.

Key Benefits

- First high temperature TPC filament on the market
- A unique balance of extreme flexibility, prolonged high temperature resistance and strength
- 100% recyclable, while maintaining viscosity level
- Prolonged high temperature resistance performance: 175°C (1000 hrs), 190°C (500 hrs)
- Excellent UV & chemical resistance
- Hardness of Shore D 61

Applications

- Air-fuel management systems, engine shields and covers for automotive
- Shutter system and front-end module components for automotive
- Gaskets and seals for automotive
- Aluminium & rubber replacement for light weighting applications in automotive under the hood
- End-of-arm tooling
- Tubes for home appliances

ARNITEL® ID2060 HT

<i>Material property</i>	<i>Value</i>	<i>Unit</i>	<i>Test Method</i>
Tensile modulus (3D printed: flat X-X direction)	230	MPa	ISO 527-1/-2
Stress at break (3D printed: flat X-X direction)	21	MPa	ISO 527-1/-2
Strain at break (3D printed: flat X-X direction)	245	%	ISO 527-1/-2
Tensile modulus (3D printed: on-edge X-Z direction)	240	MPa	ISO 527-1/-2
Stress at break (3D printed: on-edge X-Z direction)	35	MPa	ISO 527-1/-2
Strain at break (3D printed: on-edge X-Z direction)	510	%	ISO 527-1/-2
Tensile modulus (3D printed: upright Z direction)	220	MPa	ISO 527-1/-2
Stress at break (3D printed: upright Z direction)	20	MPa	ISO 527-1/-2
Strain at break (3D printed: upright Z direction)	55	%	ISO 527-1/-2

<i>Mechanical properties (TPE)</i>	<i>Value</i>	<i>Unit</i>	<i>Test Method</i>
Shore A Hardness (3s)	98	-	ISO 868
Shore D Hardness (3s)	61	-	ISO 868



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buying options, please
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