ARNITE®
T AM1210 (P)

Arnite® T AM1210 (P) is the first-ever PBT powder commercially available for selective laser sintering. The material is the ideal solution for small series production via additive manufacturing in industrial applications such as automotive electronics.

- **Well-known material with dielectric properties**
- **PBT powder for selective laser sintering**

Arnite® T AM1210 (P) is the first material from DSM's powder platform, offering customers a widely-known material in the industrial sector which can now be considered for small series production of end use parts.

As 3D printing evolves from prototyping to industrial manufacturing, customers need materials such as Arnite® T AM1210 (P) to meet their stringent demands. Current solutions do not meet application requirements for industrial applications, such as automotive electronics or applications that need to perform under high temperatures. Arnite® T AM1210 (P) has the same dielectric properties as material used in injection molding processes, making it a material engineers are familiar with and prepared to use.

Developed for a wide sinter window, the powder is extremely easy to print. Additionally, Arnite® T AM1210 (P) is environmentally friendly with a high reuse rate and is recyclable to the extent that the material can be brought back to the powder bed process.

Key Benefits

- A well-known material that can be adopted quickly
- Excellent dielectric properties
- Extremely easy to print
- Improved dimensional stability due to lower moisture uptake
- Less waste due to >60% reuse rate
- Recyclable: non-reusable material can be brought back to the powder bed process

Applications

- Connectors
- Automotive Electronics
- Electrical
- Lighting

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Provisional Technical Data

Mechanical properties	Value	Unit	Test Method
Tensile modulus XY	2600	MPa	ISO 527-1/-2
Tensile modulus Z	2600	MPa	ISO 527-1/-2
Tensile stress at break XY	47	MPa	ISO 527-1/-2
Tensile stress at break Z	30	MPa	ISO 527-1/-2
Strain at break XY	4	%	ISO 527-1/-2
Strain at break Z	1.2	%	ISO 527-1/-2

Thermal properties	Value	Unit	Test Method
Melting temperature (10°C/min)	225	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)[1]	55	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)[1]	165	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)[1]	tbd	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)[1]	tbd	E-4/°C	ISO 11359-1/-2

Other properties	Value	Unit	Test Method
Water absorption	0.45	%	Sim. to ISO 62
Humidity absorption	0.18	%	Sim. to ISO 62
Density	1300	kg/m³	ISO 1183

[1] based on IM bars

For more information and buying options, please visit www.dsm.com/additive-manufacturing/

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