Alphawool® Unifelt

Product Data Sheet



Alphawool Unifelt is made of polycrystalline bulk fibres bonded with an organic binder which burns out on exposure to 180-200°C (356-392°F).

Alphawool Unifelt demonstrates excellent flexibility with excellent dimensional resilience after compression and makes utilization of the felt or cut pieces very easy to handle compared to rigid products.

Alphawool Unifelt is supplied in a wide range of thickness minimum 6mm to a maximum 50mm (combining light weight, high heat resistance, and low thermal conductivity).

Features

- Not classified as dangerous under EC Directive 67/548/EEC or according to self-classification guidelines
- High chemical purity
- Excellent insulating performance
- Flexibility, good resilience
- Excellent thermal stability
- Excellent chemical stability in industrial process conditions
- Low heat storage
- Resistance to thermal shock
- Can be easily cut

Applications

- Expansion joints
- Furnace lining
- Gaskets

Environmental & Health Safety

Polycrystalline Wools are not classified as hazardous in Europe or Asia. They have no requirements for warning labels under GHS (Globally Harmonized System for the classification and labelling of chemicals).

In Europe, Polycrystalline Wools have been registered under REACH and a conclusion of non-hazardous has been reached by the registrants following evaluation of available data. All Morgan Advanced Materials Polycrystalline Wool products are therefore regarded as non-hazardous under the classification and labelling regulation in Europe.

Some types of Polycrystalline Wool are considered as category 2 carcinogens under USA HazCom2012 following their inclusion in the RCF IARC evaluation, however the Alphawool family contains a very low percentage of respirable fibres and is therefore considered to be outside the scope of this inclusion.

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Properties	Alphawool Unifelt
Region of Manufacture	Europe
Color	white / tan
Classification Temperature, °C (°F), EN 1094-1 (2008)	1600 (2912)
Density, kg/m^3 (pcf), EN 1094-1 (2008)	90 (6), minimum
Tensile strength, MPa (psi), EN 1094-1 (2008)	65 (9425)
Loss of Ignition, %	<5
Permanent Linear Shrinkage, %, after 24 hours, ENV 1094-1	
Classification temperature, °C (°F)	<2
Chemical Analysis, %	
Alumina, Al_2O_3	93 - 96
Silica, SiO_2	3-5
Other	0-2
Thermal Conductivity, W/m•K, ASTM C201	
400°C	0.06
600°C	0.09
800°C	0.14
1000°C	0.21
1200°C	0.29
1300°C	0.34
1400°C	0.39

The product(s) represented are intended for industrial refractory applications. The values and application information in this datasheet are given for guidance only. The values and the information given are subject to normal manufacturing variation and may be subject to change without notice. Morgan Advanced Materials – Thermal Ceramics makes no guarantees and gives no warranties about the suitability of a product, and you should seek advice to confirm the product's suitability for use with Morgan Advanced Materials.

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