

Development Grade: Cerpol® D1001K

Material Type: Ceramifying PVC Compound

Description:

Cerpol® D1001K is a development grade of ceramifying PVC, with enhanced flame retardancy, for use in sheet or profile extrusions. The compound is semi-rigid. It contains a high level of an inorganic ceramifying system. In a fire situation, Cerpol® D1001K is designed to transform into a rigid ceramic, with some expansion, to fill gaps and provide an effective fire barrier.

Actual behaviour in a fire situation will depend on many factors. Users should conduct their own testing to verify performance in particular applications.

Extruded profiles can be worked with conventional tools. Safety requirements are detailed in Material Safety Data Sheet D1001K.

Physical Properties¹⁾:

Property	Test Method	Value	Units
Physical Form		Granules	
Bulk Density		Approx. 1.0	g/cm ³
Colour		Natural (off-white)	
Density	ISO1183-1	1.75	g/cm ³
Hardness	ISO7619-1	45	Shore D
Flexural Modulus	ISO178	tba	MPa
Tensile Strength	ISO527	5.3	MPa
Elongation at Break	ISO527	22%	
Flammability	UL94 ²⁾	V0	
LOI	ISO4589-1	37.6	

1) Test results are typical values, based on limited trial production. They are not to be construed as a specification

2) Test results have not been certified by UL

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Drying:

Cerpol® D1001K must be thoroughly dried before processing to avoid porosity. 3 hours minimum at 60°C in a desiccant dryer is recommended.

Do not Blend:

Masterbatches, process aids and other additives should not be mixed with this material. Nor should the material be let down with any other polymer. Fire performance may be influenced by small additions of organic or inorganic materials.

Colouring:

Colouring is possible within the normal limits for materials with high filler levels, by using pre-coloured compounds. Please discuss your requirements with Ceram Polymerik.

Processing:

Cerpol® D1001K is intended for extrusion processing.

It can be processed using normal PVC extrusion processing equipment. Tooling should be suitably wear and corrosion resistant. As with all PVC compounds, process temperatures should be kept low (typically to 160–190°C max) to minimise risk of thermal degradation.

Handling & Storage:

Cerpol® D1001K is classified as non-hazardous, but as a Class 9 Dangerous Good. Refer to MSDS D1001K for safe handling requirements.