

Ixan® PVS 109

polyvinylidene chloride

Ixan® PVS 109 is a ready-to-process PVDC based pre-mix of high viscosity formulated to offer very good thermal stability as well as outstanding oxygen and water vapor barrier properties.

It is suitable for both extrusion and co-extrusion processes and is particularly recommended for use as barrier layers in multilayer food packaging films

(heat shrinkable or not). This grade is especially dedicated to meat packaging applications or to systems requiring very long term shelf life.

Ixan® PVS 109 is compliant with FDA and EU 10/2011 requirements and is supplied as a blue tinted, free-flowing powder.

General

Material Status	• Commercial: Active	
Availability	• Asia Pacific • Europe	• Latin America • North America
Features	• Moisture Barrier	• Oxygen Barrier
Uses	• Food Packaging	
Agency Ratings	• EU 10/2011 ¹	• FDA ¹
Appearance	• White - Blue Tint	
Forms	• Powder	
Processing Method	• Coextrusion	• Extrusion

Physical	Typical Value	Unit	Test method
Density	1.73	g/cm ³	ISO 1183
Apparent (Bulk) Density	0.80	g/cm ³	ISO 60
Particle Size - Average Diameter	240	µm	Internal Method

Films	Typical Value	Unit	Test method
Oxygen Transmission Rate ² 23°C, 85% RH, 10 µm	5.0	cm ³ /m ² /24 hr	ASTM D3985
Water Vapor Transmission Rate ² 38°C, 90% RH, 10 µm	2.0	g/m ² /24 hr	ASTM F1249

Thermal	Typical Value	Unit	Test method
Melting Temperature	158	°C	ISO 11357-3

Fill Analysis	Typical Value	Unit	Test method
Melt Viscosity (160°C, 100 sec ⁻¹)	1500	Pa·s	Internal Method



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Additional Information

PROCESSING

- As supplied, Ixan® PVS 109 is formulated for the extrusion or the coextrusion of multilayer barrier films. It can be processed by extrusion using machine designs that allow streamlined plastic flow in order to minimize the risk of plastic hold-up in the equipment.
- Regarding construction materials for the machine, we recommend that the parts in contact with the melt PVDC have high corrosion resistance and contain no catalytic materials (see below), i.e. those made of high Ni alloys like Xaloy®, Duranickel®, Colmonoy®, or Hastelloy®.
- It is essential that the temperature of Ixan® PVS 109 melt is kept below 180°C and the residence time is minimized.
- Thermal degradation during melt processing will release hydrogen chloride (HCl) gas. This reaction is catalysed by the presence of Iron (Fe), Copper (Cu), and Zinc (Zn).

Please contact Customer Technical Development team for further information about Ixan® PVS 109 processing and for technical support during extrusion trials.

STORAGE

- Keep in a well-ventilated and dry place
- Do not store in heat or direct sunlight
- Keep only in the original package at a temperature not exceeding 40°C

ISO CERTIFICATION

The implemented management system for the production, internal transfer and delivery, design and development of Ixan® vinylidene chloride copolymers (PVDC) produced in Tavaux has been assessed and found to meet the requirements of ISO 9001: 2008, ISO 14001: 2004 and OHSAS 18001: 2007.

Notes

Typical properties: these are not to be construed as specifications.

¹ Please contact your Account Manager to request an EU food contact and/or FDA letter which provides the specifications for compliance with these regulations.

² Cast film extruded (EVA/PVDC/EVA) -- film conditioned two days at 40°C

