Diofan® A 610

polyvinylidene chloride

Diofan® A 610 is a water based dispersion of a polyvinylidene chloride copolymer. It is free of solvent traces, alkylphenol ethoxylates or any other toxic substances. It features exceptional barrier properties to water vapor and oxygen.

Diofan® A 610 is a high surface tension latex; the addition of a convenient surfactant will enable to obtain a good quality coating as well as the addition of a coalescent agent to facilitate film formation at low temperature (< 10°C).

Diofan® A 610, as chlorinated based latex, combines also fire retardant properties.

End uses are for example:

- Barrier and sealing coatings
- Flame resistant coatings

Substrates can be concrete, cement, wood, gypsum, paper, fiberboard and others.

General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific • Europe	• Latin America • North America
Features	• Flame Retardant • Moisture Barrier	• Non-Toxic • Oxygen Barrier
Uses	• Barrier Coatings	• Coating Applications
Agency Ratings	• EC 1907/2006 (REACH) • EU No 10/2011	• FDA Unspecified Rating [1]
Appearance	• Milky White	
Forms	• Liquid	

Physical	Typical Value	Unit
Density		
Coated film (dry)	1.65	g/cm³
Dispersion (wet)	1.33	g/cm³
Emulsion Type	Anionic	
Filmability - Minimum Film Forming Temperature	11	°C
pH	1.5	
Solids Content	60	%
Surface Tension	54	mN/m

Films	Typical Value	Unit	Test method
Water Vapor Transmission Rate			ASTM F1249
38°C, 90% RH, 1.0 µm	14	g/m²/24 hr	
Oxygen Transmission Rate - (25°C, 85% RH, 1.0 µm)	40	cm³/m²/bar/24 hr	ASTM D3985

Thermal	Typical Value	Unit
Glass Transition Temperature [2]	16.0	°C

Additional Information	Typical Value	Unit
Shelf Life	10	month

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DELIVERY AND STORAGE

- Diofan® A 610 is delivered in bulk or in Intermediate Bulk Containers (IBC). Bulk supplied latex should be stored in reservoirs made of suitable stainless steel, HDPE, rigid PVC or glass fiber-reinforced polyester.
- Contact of anionic Diofan® dispersion with metals like iron, zinc, aluminum and copper as well as alloys such as brass and bronze must be avoided.
- Keep the vessels tightly closed to prevent drying through evaporation. Store the product ideally between 5°C and 25°C (41 °F and 77°F) to avoid degradation.

PROCESSING - DRYING

- Diofan® A 610 can be processed with different coating techniques, including reverse gravure roll and air knife coating systems.
- When coated on plastic films, Diofan® A 610 should be formulated with wax and silica in order to improve the blocking and slip properties of the finished coating.
- Diofan® coatings requires adequate drying conditions, since in general higher temperatures will contribute to better barrier properties.

FOOD AND DRUG LEGISLATIONS

- Some agency ratings are listed on page 1. Necessary certification will be provided upon request.

ISO CERTIFICATION

- The implemented management system for the production, internal transfer and delivery, design and development of Diofan® 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] Glass transition temperature TG measured with a dried Diofan® A 610

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