Diofan® 193 DH
polyvinylidene chloride

DIOFAN® 193 DH is a PVDC latex recommended for use as a functional topcoat over DIOFAN® A736 coated PVC or PVC/PE film structures used for blister applications in pharmaceutical packaging.

General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific • Europe	• Latin America • North America
Features	• Moisture Barrier	• Oxygen Barrier
Uses	• Barrier Coatings	• Coating Applications
Agency Ratings	• DMF 8738 • EC 1907/2006 (REACH)	• EU No 10/2011 • FDA [1]
Appearance	• Milky White	
Forms	• Liquid	

Physical	Typical Value	Unit
Density		
Coating (Dry)	1.65	g/cm³
Dispersion (wet)	1.31	g/cm³
Emulsion Type	Anionic	
Filmability - Minimum Film Forming Temperature	18	°C
pH	Acidic	
Solids Content	58	%
Surface Tension - Foaming tendency	36	mN/m
Viscosity (20°C)	13	mPa·s

Mechanical	Typical Value	Unit	Test method
Coefficient of Friction - vs. Steel - Dynamic	0.20	mN/m	Internal Method

Films	Typical Value	Unit	Test method
Oxygen Transmission Rate			ASTM D3985
25°C, 85% RH, 1.0 µm	54	cm³/m²/24 hr	
Water Vapor Transmission Rate			ASTM F1249
38°C, 90% RH, 1.0 µm	16	g/m²/24 hr	
Heat Seal Maximum Resistance - with Aluminum - 20 psi - 1s - 1 heated jaw [2] (140°C)	5.8	N/cm	

Additional Information	Typical Value	Unit
Shelf Life - Latex (23°C)	12	month

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DELIVERY AND STORAGE

- Diofan® 193 DH 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 30°C (41 °F and 86°F) to avoid degradation.
- IBC should be protected from sunlight exposure.

PROCESSING - DRYING

- Diofan® 193 DH can be processed with different coating techniques, including reverse gravure roll and air knife coating systems.
- Diofan® coatings require adequate drying conditions, since, in general, higher temperatures will result in 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] Tested on PVC (250 µm)/Diofan® A 736 (32 gsm)/Diofan® 193 D (8 gsm) structure stored at 40°C for 2 days.