

# Impranil<sup>®</sup> DLN W 50

## Characterization

Impranil DLN W 50 is an anionic aliphatic polyester-polyurethane dispersion. Impranil DLN W 50 is suitable for the formulation of textile coatings used for numerous articles such as: outerwear, bags/luggage, fashion shoe uppers, and shoe lining materials.

## Form supplied

Form supplied is a white low-viscosity dispersion in water with a solids content of approximately 50%.

## Characteristic data

Property	Value	Unit of measurement	Method
Flow time at 23°C 4 mm cup	≤ 70	s	
pH value	5.5 - 7.5		
Non-volatile content (0.9-1.1 g / 1 h / 125°C)	49 - 51	%	

## Other data\*

Property	Value	Unit of measurement	Method
Density at 23°C	1.1	g/cm <sup>3</sup>	

\*These values provide general information and are not part of the product specification.

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## Typical film properties\*

The data given below are average values measured in approx. 0.1 mm transparent films of Impranil DLN W 50, thickened with 2% Borch<sup>®</sup> Gel ALA (Borchers).

Property	Value
Microhardness, Shore A	62
100% Modulus, MPa	2
Tensile Strength, MPa	36
- After 14 days hydrolysis (70°C, 95% RH)	5
Elongation at break, %	1,500
- After 14 days hydrolysis (70°C, 95% RH)	1,000
Lightfastness	7
Volume Swelling**, % (2 hours at room temperature)	
- Acetone	240
- Butanone	380
- Ethanol	70
- Ethyl aceate	380
(16 hours at room temperature)	
- Water	0
Melting Range, °C (uncrosslinked)	175 - 200

\*These values provide general information and are not part of the product specifications.

\*\*The volume swelling decreases again as the solvent evaporates.

## Properties / Applications

Impranil DLN W 50 exhibits high flexibility, high solids content, good lightfastness and is suitable for mechanical foaming.

As with any product, use of Impranil DLN W 50 in a given application must be tested (including but not limited to field testing) in advance by the user to determine suitability.



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## Storage

Impranil DLN W 50 should be stored in tightly sealed original containers and protected from freezing, heat, and foreign materials. The product cannot be used if it has been frozen. The containers must be well closed to prevent the evaporation of water which may result in the formation of a non-redispersible film. Brief heating to maximum 50°C has no adverse effect on product properties. Recommended storage temperature is 5°-30°C.

## Storage time

Impranil DLN W 50 has a shelf life of twelve months from date of receipt at customer, provided the material is stored in sealed original containers at the recommended storage temperature.

## Health and Safety Information

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling this product. Before working with this product, you must read and become familiar with the available information on its risks, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., safety data sheets and product labels. For further information contact your Covestro LLC representative or the Product Safety and Regulatory Affairs Department in Pittsburgh, PA.

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether our products, technical assistance and information are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with any claim of any patent relative to any material or its use. No license is implied or in fact granted under the claims of any patent.

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**Product Datasheet**