

# Luphen<sup>®</sup> 3644

## Adhesive Raw Materials

**Product description** Luphen<sup>®</sup> 3644 is used for the manufacture of adhesives for laminating and footwear applications. The crystalline film that Luphen<sup>®</sup> 3644 forms can be activated by heat and becomes temporarily tacky.

**Chemical nature** Aqueous dispersion of a polyester- polyurethane

## Properties

**Physical form** Liquid, dispersion

<b>Technical data</b> (not supply specification)	Solid content	DIN EN ISO 3251	~ 50 %
	pH value	DIN ISO 976	~ 7.5
	Viscosity	DIN EN ISO 3219	~ 200 mPa·s

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## Application

If thickeners or other products are added to Luphen® 3644, none of the components should have a pH of less than 7 in order to avoid coagulation.

Luphen® 3644 can only be mixed with anionic dispersions or with dispersions that contain a protective colloid.

Containers, pipes and other equipment that come into contact with Luphen® 3644 must be made of corrosion-resistant materials such as 18/8 stainless steel or plastics to avoid coagulation.

Specially developed water-emulsifiable, polyfunctional isocyanates such as Basonat® F 200 WD can be added to adhesives formulated with Luphen® 3644 to improve the heat resistance of the bond and its resistance to water and chemicals.

The potlife of the adhesive depends on the reactivity of the isocyanate being used, and this has to be determined in trials.

We recommend to add a preservative to adhesives based on Luphen® 3644 in order to protect them from microbial attack.

The suitability of such additives must be verified and monitored in trials.

Adhesive manufacturers should carry out their own trials carefully when developing adhesives based on Luphen® 3644.

There are many factors in production and processing that we cannot cover exhaustively in our trials, factors that can influence the compatibility with other components of the adhesives, e.g. their wetting of and adhesion to different substrates.

Particular attention is drawn to the fact that polyurethanes can be affected by hydrolysis and by exposure to heat, and comprehensive tests therefore need to be performed with the adhesive formulations.

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## Storage

Polyurethanes are fast film forming polymer dispersions. Therefore, the storing conditions should be respected (please check the specification data sheet).

However, a film formation cannot be avoided entirely. If separated from the container wall, PUD films look very similar to plastic foils and tend to block the drain of IBCs. We recommend to check the material from the top by opening the IBC and to remove the foil, if any, before emptying it.

There is no negative impact on the product quality noticeable.

### Safety

When handling this product, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

### Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.

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Dispersions & Resins Europe  
67056 Ludwigshafen, Germany  
[www.basf.com/dispersions](http://www.basf.com/dispersions)