

Luphen[®] D 259 U

Adhesive Raw Materials

Product description Luphen[®] D 259 U is used in the manufacture of adhesives for film lamination.

Chemical nature Aqueous dispersion of a polyetherpolyurethane elastomer

Properties

Physical form Liquid dispersion

Technical data

(no supply specification)

| | | |
|---|-----------------|-------------------------|
| Solids content | DIN EN ISO 3251 | ~ 40 % |
| pH Value | DIN ISO 976 | 6 – 7 |
| Viscosity | DIN EN ISO 3219 | 20 – 120 mPa s |
| Glass transition temperature | | ~ -45 °C |
| Tensile strength of film | | ~ 0.4 N/mm ² |
| Elongation at break | | ~ 2000 % |
| Tensile strength of crosslinked film | | ~ 1.8 N/mm ² |
| Elongation of crosslinked film at break | | ~ 1000 % |

Application

Application areas

Luphen® D 259 U adheres well to the types of plastic used for this purpose as well as to metallised films and aluminium.

The addition of a few percent of a water-dispersable polyisocyanate to Luphen® D 259 U increases its resistance to heat and moisture.

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

Processing

In order to prevent coagulation, it is important to make sure that none of the components has a pH of less than 7 when thickeners are added or when Luphen® D 259 U is mixed with other products. Luphen® D 259 U can only be mixed with anionic dispersions or with dispersions that contain a protective colloid.

Container, pipes and other equipment that come into contact with Luphen® D 259 U must be made of corrosion-resistant materials such as 18/8 stainless steel or plastics to prevent coagulation.

If Luphen® D 259 U is employed in laminating adhesives, a surfactant such as Lumiten® ISC should be added to the polymer dispersion at a rate of up to 1 % in order to promote the wetting of the substrate during coating.

We recommend adding a preservative to adhesives based on Luphen® D 259 U to protect them from microbial attack.

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

Manufacturers must carefully carry out their own trials when developing adhesives based on Luphen® D 259 U, as there is a host of factors in production and processing that we cannot cover exhaustively in our trials which can influence compatibility with other components of the adhesives, their wetting of and adhesion to different substrates etc.

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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