

Desmodur[®] RFE

Characterization

Solution of tris(p-isocyanatophenyl) thiophosphate in ethyl acetate.

Desmodur[®] RFE is a crosslinker with very universal suitability for adhesives based on Desmocoll[®], natural or synthetic rubber with special adhesion on rubber materials.

Form supplied	approx. 27 % in ethyl acetate
Appearance	Clear yellow-brown liquid. The color does not influence the quality of the bonds.

Specification Property	Value	Unit of measurement	Method
NCO content	7.2 ± 0.2	%	M105-ISO 11909

Other data* Property	Value	Unit of measurement	Method
Non-volatile content	approx. 27	%	DIN EN ISO 3251
Density at 20 °C	approx. 1.0	g/cm ³	DIN 53 217/5
Viscosity at 20 °C	approx. 3	mPa·s	DIN 53 015
Solvent	Ethyl acetate		
Flash point	- 4	°C	DIN 51 755

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

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Properties / Applications

After adding of Desmodur[®] RFE, the ready-to-use two-component adhesive must be used within its pot life. This is not only governed by the polymer content of the adhesive but also by its other components (resins, antioxidants, plasticisers, solvents, etc.). At the end of the pot life, usually several hours or one working day, the adhesive becomes increasingly difficult to work and its viscosity increases rapidly. Finally, irreversible gelling occurs.

The following guide values can be used in determining the addition by weight. To crosslink 100 pbw adhesive:

Desmocol[®] (hydroxyl polyurethane)
4 - 7 pbw Desmodur[®] RFE
(polyurethane content approx. 20 %)

Baypren[®] (chloroprene rubber)
4 - 7 pbw Desmodur[®] RFE
(rubber content approx. 20 %)

Disposal

Please pay attention to the current safety data sheet.

Packaging

Metal container: 1 litre bottle containing 0.75 kg, jug containing 55 kg and barrel containing 200 kg.

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Storage

- Storage in original sealed Covestro container.
- Recommended storage temperature: 10 - 30 °C.
- Protect from moisture, heat and foreign material.

General information: During transportation and storage at low temperatures, crystalline deposits may form. These redissolve at room temperature. The product is highly sensitive to moisture and react with water to form carbon dioxide and insoluble ureas. The containers must therefore be kept tightly sealed. The ingress of water in any form (damp containers, anhydrous solvents, moist air) must be prevented as otherwise the formation of carbon dioxide may cause a dangerous increase in pressure in the containers. Exposure to air and/or light intensifies discoloration but this has no effect on the processing properties in general.

Storage time

Covestro represents that, for a period of twelve months following the day of shipment as stated in the respective transport documents, the product will meet the specifications or values set forth in section "specifications or characteristic data" above, what ever is applicable, provided that the product is stored in full compliance with the storage conditions set forth in and referenced under section "storage" above and is otherwise handled appropriately.

The lapse of the twelve months period does not necessarily mean that the product no longer meets specifications or the set values. However, prior to using said product, Covestro recommends to test such a product if it still meets the specifications or the set values. Covestro does not make any representation regarding the product after the lapse of the twelve months period and Covestro shall not be responsible or liable in any way for the product failing to meet specifications or the set values after the lapse of the twelve months period.

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Labeling and statutory requirements This product data sheet is only valid in conjunction with the latest edition of the corresponding Safety Data Sheet. Any updating of safety-relevant information – in accordance with statutory requirements – will only be reflected in the Safety Data Sheet, copies of which will be revised and distributed. Information relating to the current classification and labeling, applications and processing methods and further data relevant to safety can be found in the currently **valid Safety Data Sheet**.

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, information and recommendations 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 Covestro. 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.

This product is not designated for the manufacture of a medical device or of intermediate products for medical devices¹⁾. [This product is also not designated for other specifically regulated applications (e.g. including cosmetics, plant protection, fertilisers, plant strengtheners, food processing, food contact and others). If the intended use of the product is for the manufacture of a medical device or of intermediate products for medical devices or for other specifically regulated applications Covestro must be contacted in advance to provide its agreement to sell such product for such purpose.] Nonetheless, any determination as to whether a product is appropriate for use in a medical device or intermediate products for medical devices, for Food Contact products or cosmetic applications must be made solely by the purchaser of the product without relying upon any representations by Covestro.

1) Please see the "Guidance on Use of Covestro Products in a Medical Application" document.

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