

Desmophen[®] T 1777 SN

Characterization Oil-free, hydroxyl-bearing polyester.
As the polyol component in the formulation of lightfast one-component polyurethane baking coatings with blocked aliphatic polyisocyanates.

Form supplied Approx. 77 % in solvent naphtha[®] 100

Specification Property	Value	Unit of measurement	Method
Hazen color value	≤ 100		DIN EN 1557
Acid value	≤ 5	mg KOH/g	DIN EN ISO 2114
Viscosity at 23 °C	5,500 ± 1,500	mPa·s	DIN EN ISO 3219/A.3
Non-volatile content (2 g resin/2 ml toluene/1 h 125 °C/convection oven)	77.0 ± 1.5	%	DIN EN ISO 3251
Hydroxyl content	2.0 ± 0.4	%	DIN EN ISO 4629-2

Other data* Property	Value	Unit of measurement	Method
Equivalent weight	approx. 850		
Density at 20 °C	approx. 1.08	g/ml	DIN EN ISO 2811-2
Flash point	approx. 48	°C	DIN EN ISO 1523

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

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Solubility / thinnability

Generally speaking, Desmophen[®] T 1777 SN is reducible to a solids content of approx. 35 % with esters, ketones, ether esters and aromatic hydrocarbons, including the higher boiling aromatic mixtures such as solvent naphtha[®] 100, 150 and 200.

Aliphatic hydrocarbons and lower boiling alcohols are not suitable for thinning. The compatibility and storage stability of the thinned solutions should always be tested.

Compatibility

Desmophen[®] T 1777 SN is compatible with Desmophen[®] T 1665, Desmophen[®] 680 , 1200, 1300, and 881 X in a ratio of up to 2:1 (solids on solids). Compatibility with alkyd resins has to be checked.

Given equivalent crosslinking, it is compatible with Desmodur[®] BL 1265, BL 3175, BL 2078/2, BL 3272, BL 3370, BL 3475 and BL 4265, N 75, N 3200, ultra N 3390 and Z 4470.

However, the pot life is greatly reduced if non-blocked polyisocyanates are used.

Compatibility of the intended combinations must be tested.

Properties / Applications

Desmophen[®] T 1777 SN was developed specially as a co-reactant for blocked polyisocyanates in coil coating applications. When combined with preferably Desmodur[®] BL 4265, it yields one-component polyurethane coil coatings with a balanced hardness/flexibility ratio and good resistance to scratching and abrasion.

The product can be combined with other blocked isocyanates and HMMM-type amino resins. However, such formulations do not generally achieve the same high surface hardness as is achieved with Desmodur[®] BL 4265.

Desmophen[®] T 1777 SN can be combined with e.g. Desmodur[®] BL 4265 or Desmodur[®] BL 2078/2 for the formulation of sterilization-proof basecoats and clearcoats for exterior can coating application.



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Storage

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

Storage time

Covestro represents that, for a period of six 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 six 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 six 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 six 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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Editor: Coatings, Adhesives & Specialties
Covestro Deutschland AG
Kaiser-Wilhelm-Allee 60
51373 Leverkusen, Germany
www.covestro.com

Contact:
CAS Single Point of Contact EMEA
e-mail: cas_spoc_emea@covestro.com

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