Desmophen® 651 MPA/X

Type	Branched hydroxyl-bearing polyester
Form supplied	approx. 67 % in 1-methoxypropylacetate-2 (MPA) / xylene, 1 : 1
Uses	As a co-reactant, usually for Desmodur® N 75, in the formulation of lightfast and weather-stable two-component coatings.

Specification

Property	Value	Unit of measurement	Method
Hazen color value	≤ 100		DIN EN 1557
Acid value	≤ 3	mg KOH/g	DIN EN ISO 2114
Viscosity at 23 °C	25,000 ± 5,000	mPa·s	DIN EN ISO 3219/A.3
Non-volatile content (1 g resin/1 ml TCP*/1 h at 125 °C, convection oven) *Disflamoll® TCP (tricresyl phosphate)	67 ± 1	%	DIN EN ISO 3251
Hydroxyl content	5.5 ± 0.4	%	DIN 53 240/2
Water content	≤ 0.1	%	DIN 51 777/1

Other data*

Property	Value	Unit of measurement	Method
Equivalent weight	approx. 310		
Density at 20 °C	approx. 1.11	g/ml	DIN EN ISO 2811-2
Flash point	approx. 32	°C	DIN EN ISO 1523

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

Desmophen® 651 MPA/X

Solubility / thinnability

Desmophen® 651 MPA/X is soluble in ethyl acetate, methyl ethyl ketone, methyl isobutyl ketone, methoxyhexanone, diacetone alcohol, 1-methoxypropylacetate-2 and methoxybutylacetate. However, the solutions formed must be tested for their storage stability.
Butyl acetate has only limited suitability for use as the sole solvent. Desmophen® 651 MPA/X is insoluble in aromatic and aliphatic hydro-carbons although it is possible to incorporate a certain proprotion of aromatics, e.g. toluene or xylene, as thinners.
Onyl PU grade solvents should be used (< 0.05 % water, free from other reactive impurities).
Desmophen® 651 MPA/X should not be thinned to below a solids content of 30 %. A lower binder content may result in turbidity of flocculation.

Compatibility

Generally speaking, Desmophen® 651 MPA/X is miscible with the Desmodur® and Desmophen® grades listed. However, the combinations must be tested for their compatibility. Desmophen® 651 MPA/X can be mixed with Desmodur® N 75, N 100, N 3200, IL, L and BL 1265 and with Desmophen® 650, 800, 1100 and 1200. It has only limited compatibility with Desmophen® RD 181, 1300, 670, A 365 and A 565 and is incompatible with Desmophen® 1700, 1800, A 160, A 265 and A 450.

Properties / Applications

Desmophen® 651 MPA/X is mainly used as a co-reactant with Desmodur® N 75. This combination yields coatings with excellent lightfastness, gloss retention and weather stability. They also have very good resistance to chemicals and abrasion.

Desmophen® 651 MPA/X

Storage	- Storage in original sealed Bayer MaterialScience container. - Recommended storage temperature: max. 30 °C. - Protect from moisture, heat and foreign material. General information: The product tends to separate after extended storage. After homogenization, the product can be used with no loss of quality.
Storage time	Bayer MaterialScience 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, Bayer MaterialScience recommends to test such a product if it still meets the specifications or the set values. Bayer MaterialScience does not make any representation regarding the product after the lapse of the six months period and Bayer MaterialScience 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.
Safety	**Hazards identification** Flammable. Harmful by inhalation and in contact with skin. Irritating to the skin. Risk of absorption through the skin of xylene and ethylbenzene. **The safety data sheet should be observed.** This contains information on labeling, transport and storage as well as on handling, product safety and ecology.

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