

TECHNICAL DATA SHEET**NOVACOTE® NC 272 A + CA 12****GENERAL DESCRIPTION**

NOVACOTE® NC 272 A + CA 12 is a solvent-based two-component polyurethane-adhesive with high slip agent compatibility in terms of adhesion.

NOVACOTE® NC 272 A + CA 12 is used for lamination of printed or unprinted transparent and metallized PET-, BOPP-, CPP-, CPA-, OPA- and PE-structures as well as aluminium foil. Laminates manufactured using NOVACOTE® NC 272 A + CA 12 show good initial bonds and excellent bond and sealing strength after final curing. Many transparent structures are highly resistant to pasteurization, boiling and sterilization.

Suitability of printing inks, films, additives etc. and for end uses must be tested by the user prior to the use of NOVACOTE® NC 272 A + CA 12. In case of changes in the quality of one component these tests have to be repeated.

**TYPICAL CHEMICAL-
PHYSICAL PROPERTIES**

The following information is not intended to be used as sales specifications.

NOVACOTE® NC 272 A:

Parameter	Typical value	Unit
Solid content	75	%
Solvent	Ethyl acetate	-
Viscosity @ 25°C	2900	mPas
Density @ 20°C	1,08	g/cm ³
Appearance	clear to slightly hazy	-
Type / chem. Character	NCO	-

NOVACOTE® CA 12:

Parameter	Typical value	Unit
Solid content	75	%
Solvent	Ethyl acetate	-
Viscosity @ 25°C	3500	mPas
Density @ 20°C	1,16	g/cm ³
Appearance	clear	-
Type / chem. Character	OH	-

The analytical methods are available upon request.

**STORAGE AND
STABILITY**

NOVACOTE® NC 272 A and NOVACOTE® CA 12 must be stored in their original and sealed containers and kept in a dry and well ventilated place; avoiding direct sun radiation.

The Shelf life of NOVACOTE® NC 272 A + CA 12 is reported on the CLP label and it is valid when both components are stored in its original sealed packaging and in proper conditions.

SAFETY

Before handling the raw materials, please read carefully the corresponding Safety Data Sheets.

NOVACOTE® NC 272 A + CA 12 contains monomeric MDI and highly flammable solvents. Process only when good ventilation is available and special precautions are taken in handling (material safety data sheet).

**PROCESSING
RECOMMENDATIONS**

Recommended mixing ratio:

Component	pbw
NOVACOTE® NC 272 A	100
NOVACOTE® CA 12	25

Suitable solvents are urethane grades of ethyl acetate, MEK (water content <0,05%) or acetone (water content <0,1%)

NOVACOTE® NC 272 A firstly has to be diluted to the desired solid content. The co-reactant NOVACOTE® CA 12 has to be added slowly while mixture is stirred. The following table indicates approximate viscosities at a given solid content:

	Solid content [%]			
	35	40	45	50
NOVACOTE® NC 272 A [kg]	100	100	100	100
NOVACOTE® CA 12 [kg]	25	25	25	25
Ethyl acetate [kg]	143	109	83	63
Viscosity @ 25°C [sec DIN4]	13	15	17	23

The pot life of the ready-to-use mixture in a closed container is more than 8 hours.

Recommended coating weight (dry):

Application	Coat weight [g/m²]
Standard applications	2,5 - 4,0
Higher demands (Boil-in-bag, pasteurization and sterilization applications)	> 3,5

The required coating weight for a particular application should be defined in specific trials by the end-user.

The curing reaction starts immediately after lamination. Rewinding and Slitting is possible after several hours. Full crosslinking is reached after 7 to 10 days curing at room temperature. Storage at elevated temperatures will reduce curing time.

If this system is intended to be used for high-temperature food-contact applications we recommend to demonstrate compliance to the primary aromatic amine requirements of Annex II of Regulation 10/2011 under the foreseen conditions of use, as the system is based on aromatic isocyanates.

All drying conditions have to be adjusted according to substrate, coating weight and machine speed. Unsuitable drying conditions may lead to increased solvent retention.

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