



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

PHYSICAL PROPERTIES 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/cm³ |
| 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/cm³ |
| Appearance | clear | - |
| Type / chem. Character | ОН | - |

The analytical methods are available upon request.

NOVACOTE[®] NC 272 A + CA 12

The information presented herein is given in good faith but without warranty. It is based on our experience, indicates the findings of our laboratory and does not necessarily indicate final product performance. We cannot be held liable for the results obtained with our products and for any loss or accident that may result from their use. Our suggestions do not release you from the obligation to check their validity and to test our products for both your process and end use application. COIM assumes no obligation or liability with regard to the descriptions and information given or results obtained as production testing and end product performance are under the responsibility of the user. All our products are sold in accordance with our General Conditions of Sale. We do not provide any warranty, express or implied, including but not limited to the merchantability and fitness for a particular purpose or use.





| STORAGE AND STABILITY | NOVACOTE [®] NC 272 A and NOVACOTE [®] CA 12 must be stored in their original and sealed contai and kept in a dry and well ventilated place; avoiding direct sun radiation. | | | sealed containers |
|--------------------------|---|---|-------------------------------|--|
| | The Shelf life of NOVACOTE [®] NC 272 A components are stored in its original set | + CA 12 is reported on the CLF aled packaging and in proper co | Plabel and it onditions. | is valid when both |
| SAFETY | Before handling the raw materials, plea | se read carefully the correspon | ding Safety D | ata Sheets. |
| | NOVACOTE [®] NC 272 A + CA 12 contains when good ventilation is available and sheet). | monomeric MDI and highly fl special precautions are taken in | ammable solv n handling (m | vents. Process only aterial safety data |
| PROCESSING | Recommended mixing ratio: | | | |
| RECOMMENDATIONS | Component | | pbw | |
| | NOVACOTE [®] NC 272 A | | 100 | |
| | NOVACOTE® CA 12 | | 25 | |
| | Suitable selvents are urathene grades a | ethyl agatata NEK (water oor | \rightarrow | ar acatona luvator |

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/m ²] |
|--|---------------------------------|
| 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 enduser.

| NOVACOTE® | NC 272 | A + CA 12 |
|-----------|--------|-----------|
|-----------|--------|-----------|

The information presented herein is given in good faith but without warranty. It is based on our experience, indicates the findings of our laboratory and does not necessarily indicate final product performance. We cannot be held liable for the results obtained with our products and for any loss or accident that may result from their use. Our suggestions do not release you from the obligation to check their validity and to test our products for both your process and end use application. COIM assumes no obligation or liability with regard to the descriptions and information given or results obtained as production testing and end product performance are under the responsibility of the user. All our products are sold in accordance with our General Conditions of Sale. We do not provide any warranty, express or implied, including but not limited to the merchantability and fitness for a particular purpose or use.





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.

Edition:

5 / September 2020

C.O.I.M. S.p.A. CHIMICA ORGANICA INDUSTRIALE MILANESE

Website: http://www.coimgroup.com

 Manufacturing Site

 Via Ricengo, 21/23 - 26010 Offanengo (CR) - Italy

 Phone:
 +39 0373 2481

 Fax:
 +39 0373 789222

 Registered H=ad Offices

 Via delle Azal=e, 19 - 20090 Buccinasco (MI)- Italy

 Phone:
 +39 02 335051

 Fax:
 +39 02 33505249 - 33505250

NOVACOTE® NC 272 A + CA 12

Page 3/3

The information presented herein is given in good faith but without warranty. It is based on our experience, indicates the findings of our laboratory and does not necessarily indicate final product performance. We cannot be held liable for the results obtained with our products and for any loss or accident that may result from their use. Our suggestions do not release you from the obligation to check their validity and to test our products for both your process and end use application. COIM assumes no obligation or liability with regard to the descriptions and information given or results obtained as production testing and end product performance are under the responsibility of the user. All our products are sold in accordance with our General Conditions of Sale. We do not provide any warranty, express or implied, including but not limited to the merchantability and fitness for a particular purpose or use.