TECHNICAL DATA SHEET

NANOMER PR-708-A with co-reactant NP-308-B .

DESCRIPTION

NANOMER PR-708-A with co-reactant NP-308-B is a solvent-free general-purpose two-component polyurethane material.

PRODUCT PERFORMANCE

NANOMER PR-708-A + NP-308-B is used for lamination of printed or unprinted metallized and transparent structures consisting of PET, BOPP, OPA, CPA and PE (slip agent content < 700ppm ESA calculated on 50µm film) or aluminium foil. Laminates manufactured with NANOMER PR-708-A + NP-308-B show excellent final bonds, sealing strength and heat resistance.

Suitability of printing inks, films, additives etc. must be tested by the user prior to the processing of NANOMER PR-708-A + NP-308-B . In case of changes in the quality of one component these tests have to be repeated .

TYPICAL PRODUCT DATA

	PR-708-A	NP-308-B
Type / chem. Character	OH	NCO
Solid content [%]	100%	100%
Density @ 20°C [g/cm3]	1.16	1.2
Viscosity @ 25°C [mPas]	1.400 ± 400	300±150
Appearance	Clear yellow	Light brown liquid
Standard mixing ratio [Mass %]	100	50 to 60

PROCESSING

NANOMER PR-708-A + NP-308-B should be used on machines equipped with a metering and mixing unit with continuous mixing of the components at a selected ratio. For a test production both components should be premixed with an efficient agitator and then poured into the application device. The material mixture should be processed within 15 minutes to obtain a constant coating weight.

Temperatures

Mixing Unit:	ambient
Dosing Roller:	30 to 40°C
Application Roller:	30 to 50°C
Nip Roller:	40 to 60°C
Laminating nip PR:	4 bar

Cleaning

If the machine is stopped for more than 15 to 30 minutes, the application unit and mixing device should be cleaned. Suitable cleaning agents are phthalate based plasticizers or glycerol triacetate. If the units are explosion-proof, esters or ketones(ethyl acetate and MEK) can also be used . All precautions listed in the material safety data sheets of the solvents should be taken.

Coating Weight:

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Standard applications: 1,0 - 2,5 g/m2

Required coating weight of particular application has to be evaluated in specific trials by the end-user.

Dosing:

The adhesive is fed continuously from a metering and mixing unit with a mechanical mixing head or a stable and static metal mixing tube. The amount of adhesive depends on the consumption. Due to the viscosity preheating of each component, according to the above table is necessary in order to improve flow properties in automatic mixing units, propeller mixers are recommended instead of static mixer.

Safety Instruction:

NANOMER NP-308-B contains monomeric MDI (>2%) and should be processed at temperatures above 40°C only when special precautions are taken in handling (material safety data sheet).

CURING TIME:

The curing reaction starts immediately after mixing. Curing time for rewinding and slitting is between 18-24 hrs. Complete cross linking occurred within 7-10 days at ambient temperature. Storage at elevated temperature reduce the curing time (use hot chamber). Manufacture of triplex laminates is possible 12 hrs. after duplex production.Best chemical resistance is reached after 7 to 10 days curing at room temperature.

Laminating conditionTension :

control must be precise and controlled to prevent delamination, tunneling and curling effect in the laminate due to excess stretching of substrate. The use of high line pressure of the calendar and nip temperature improve the final bond strength and optical properties.

STORAGE:

PACKAGING:

NANOMER PR-708-A	200 kg Metal Drums
NANOMER NP-308-B	200kg Metal Drums

Guaranteed shelf life is 6 months in unopened original containers. Once opened, the containers - especially NANOMER NP-308-B - should be used within 24 hours. It is also important that opened containers are well closed again after use.

ADDITIONAL INFORMATION

Films, additives, contained in such films (antistatic, slip agents etc.) printing inks, preliminary treatment proceeding, operative conditions of rolling and manufactures products are all factors which may influence, even after some time the properties of adhesion and endurance of the rolled products. In order to achieve the best results in relation to the final properties of the products, in specific features of each component used in the production of the package must be considered.