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novacote
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TECHNICAL DATA SHEET

Novacote NC-7100 + CA-27 LAMINATING ADHESIVE

| PRODUCT DESCRIPTION | : | Novacote NC-7100+CA-27 is a solvent-based 2-component polyester polyurethane adhesive for dry bond laminating of film/film, film/metallized films and film/foil structures. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|------------|---|---|------------|--|--|--|-----------------------|--|--|--|------------|------------|------------|------------|---------|-------|-----|-----|-----|---------------|-------|-----|-----|-----|-------|------|----|----|----|-------|--|-------|--|--|------------|-----|-----|-----|-----|
| PRODUCT REFERENCE | : | NC- 7100 (-OH component) | CA-27 Co-reactant (-NCO component) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SOLID CONTENT | : | (75 ± 2) % | (75 ± 2) % | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VISCOSITY | : | 3000-9000 mPas at 25 °C | 1600 o 400 mPas at 23 °C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DILUENT | : | Ethyl Acetate (urethane grade only). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MIX RATIO BY WEIGHT | : | <table border="1"><thead><tr><th></th><th></th><th colspan="3"><u>Running solids</u></th></tr><tr><th></th><th><u>25%</u></th><th><u>30%</u></th><th><u>35%</u></th><th><u>40%</u></th></tr></thead><tbody><tr><td>NC-7100</td><td>: 100</td><td>100</td><td>100</td><td>100</td></tr><tr><td>Ethyl acetate</td><td>: 230</td><td>173</td><td>131</td><td>101</td></tr><tr><td>CA-27</td><td>: 15</td><td>15</td><td>15</td><td>15</td></tr><tr><td colspan="2"><hr/></td><td colspan="3"><hr/></td></tr><tr><td>Total (kg)</td><td>345</td><td>288</td><td>246</td><td>216</td></tr></tbody></table> | | | | | | <u>Running solids</u> | | | | <u>25%</u> | <u>30%</u> | <u>35%</u> | <u>40%</u> | NC-7100 | : 100 | 100 | 100 | 100 | Ethyl acetate | : 230 | 173 | 131 | 101 | CA-27 | : 15 | 15 | 15 | 15 | <hr/> | | <hr/> | | | Total (kg) | 345 | 288 | 246 | 216 |
| | | <u>Running solids</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <u>25%</u> | <u>30%</u> | <u>35%</u> | <u>40%</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NC-7100 | : 100 | 100 | 100 | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ethyl acetate | : 230 | 173 | 131 | 101 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CA-27 | : 15 | 15 | 15 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <hr/> | | <hr/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total (kg) | 345 | 288 | 246 | 216 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DILUTION INSTRUCTIONS | : | Mix NC-7100 + Ethyl Acetate first followed by co-reactant, CA-27. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DYNAMIC PAN-LIFE | : | 24 hours (tested 30% running solids in ethyl acetate at 35 °C;100% rh). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| APPLICATION METHOD | : | Gravure coating or smooth roll coating. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DRYING CONDITIONS | : | Forced hot air (60-90 °C) sufficient to remove the solvent. Exhaust must be efficient to remove solvent vapours from the drying tunnel. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NIP TEMPERATURE | : | 50-70 °C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DRY COATING WEIGHT | : | 2-4 gsm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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**Novacote NC-7100 + CA-27
LAMINATING ADHESIVE**

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| CURING TIME | : | Bond immediately off the machine is good. Maximum heat and product resistance will develop within 5-10 days. Higher curing temperatures (e.g., 40 °C for 3-5 days) will accelerate curing rate, and give better heat and product resistance properties. |
| PRE-TREATMENT OF FILMS | : | For polyolefin films, corona treatment is mandatory. Pretreatment will improve the results obtained with polyester film and some nylon films. Recommended corona treatment level on common films is as follows: PE, PP films: 38 dynes/cm; PET, O-Ny: 52 dynes/cm; metallized films: 38-40 dynes/cm. |
| STORAGE AND SHELF-LIFE | : | NC-7100, and CA-27 are flammable liquids. Store under dry conditions at 5 - 30°C, and away from direct sunlight. Close the containers after each use especially co-reactant, which is highly moisture-sensitive. Use up the products as soon as possible once the containers are open. Otherwise, purging of the containers with dry air or nitrogen gas is recommended. Shelf life is 6 months in original unopened containers stored away from heat, direct sunlight and rain. |
| FDA STATUS | : | NC-7100+CA-27 complies with US FDA Regulation, 21 CFR. 175§105 (Adhesives for food packaging materials). |
| IMPORTANT NOTE | : | Before we introduce a new adhesive to the marketplace, the adhesive is comprehensively tested in our own laboratories. However, because of the hundreds of possible film combinations and the different printing ink systems used in various parts of the world, as well as the diversity of food, cosmetics, medical devices and pharmaceuticals that may be packaged in laminates made with our adhesives, we <u>cannot</u> possibly forecast their performance under all circumstances. Therefore, we strongly urge our customers to test our adhesives on a small scale to establish that laminates made with our products are suitable for the end uses for which they are intended, prior to commencing large scale production. |

Updated Aug, 2011