

CI/SfB	(31)	Ln6
CAW P10		
Uniclass L6631:P91		

Description

TN021 is made from a composition of viscoelastic acrylic copolymers and monomers with glass microsphere fillers which is then extruded and cured using UV light. There are no solvents used during the manufacturing process. The product is naturally tacky and is capable of forming permanent bonds with many non-porous materials, in many cases eliminating the need for mechanical fasteners in extreme environmental conditions.

Selection

The table on the reverse of this page should be used as a guide to selecting the correct product; however, in all cases, the user is advised to conduct indicative testing to determine the suitability of the product for the intended application. Please contact our technical sales department for further advice and to request samples.

Colour

White, dark grey, black and clear

Packaging

Boxed quantities variable dependent on size. Contact tremco illbruck Customer Service Department for details.

Substrate Design Considerations

- Special consideration is required to ensure the substrates are flat and straight to allow even compression of the tape.
- A general guide will be to have 55 square cm per every 1 kg of static load. The actual amount of tape to be used for each application will depend again on the particular application and user evaluation is required to determine the optimal tape application.
- The necessary tape thickness will depend on the rigidity of the substrates, their irregularity and the amount of application pressure which can be applied to bond the surfaces. The mismatch between surfaces must be less than half the tape thickness. This general rule will apply only when there are firm lamination pressures to establish good surface contact. To test potential surface contact problems, bond tape to the rigid or irregular surface that you intend to use and then laminate a test piece of 0.6 mm clear acrylic and apply pressure. Observe the bond contact area through the clear acrylic substrate.
- The gap between substrates must be constant, if not, lifting of the tape may occur and allow dirt ingress.
- Allowance should be made for substrate expansion, for example, avoiding tight joints between glazing bars.
- Timber should be sealed on all surfaces. Intersections in glazing bars may be sealed with flexible joint filler if required. With wider substrates and glazing bars (20 mm and above) it is recommended to use two narrow strips of tape applied along the length of the substrate / bar. This helps reduce air entrapment and the compression force required to consolidate the bond.
- Presence of co-extruded gaskets on glazing bars has to be considered, and tape thickness should allow for full contact with minimal compression of the gasket.
- Tape thickness should be such that good contact with the substrates are made along the full length of the bond line (this should be checked after assembly).



TN021

Foamed Acrylic Tape

Usage / Purpose

TN021 is ideal for use in:

- Manufacture of resin bonded laminated glass
- Sign manufacture
- Georgian bar bonding
- Door panel manufacture
- Commercial vehicle body manufacture
- Manufacture of architectural cladding panels
- General metal fabrication

Key Benefits

- In most cases, TN021 tapes are capable of replacing rivets, spot welds, liquid adhesives and other permanent fasteners
- Non-mechanical bonding – can support reduction in gauge thickness
- Achieves a constant, factory-controlled bond film thickness

Foamed Acrylic Tape

Technical Information

Property	Units / Test Method																
Colour		Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	White	White	White	White	White	White	White	White
Thickness	mm	0.25	0.5	0.8	1	1.5	2	3	0.25	0.4	0.6	0.8	1.2	2	3	4	
Standard Release Liner		White Paper	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	
180° Peel Adhesion	ASTM D-3330 N/25 mm	1800	2500	3300	3500	3600	3800	3300	1800	2500	3000	3500	3700	3500	3300	2300	
Holding Power	ASTM D-3674 hours	>24	>24	>24	>24	>24	>24	>24	>24	>24	>24	>24	>24	>24	>24	>24	
Dynamic Shear Strength	ASTM D-1002 kg/cm ²	5500	5000	4500	4000	3500	3300	3000	6000	6000	5000	5000	4500	3500	3200	2200	
Temperature Resistance (Short Term)	°C	120	120	120	120	120	120	120	150	150	150	150	150	150	150	120	
Temperature Resistance Long Term	°C	80	80	80	80	80	80	80	90	90	90	90	90	90	90	80	
UV Resistance		Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	

Property	Units / Test Method																
Colour		Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Black	Black	Black	Black	Black	Black
Thickness	mm	0.25	0.4	0.6	0.8	1.2	1.5	2	2.4	3	0.25	0.4	0.6	0.8	1.2	1.5	
Standard Release Liner		Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	Red PE Film	
180° Peel Adhesion	ASTM D-3330 N/25 mm	2000	2500	3000	3500	3700	3800	3500	3500	3300	1800	2500	3000	3300	3700	3500	
Holding Power	ASTM D-3674 hours	>24	>24	>24	>24	>24	>24	>24	>24	>24	>24	>24	>24	>24	>24	>24	
Dynamic Shear Strength	ASTM D-1002 kg/cm ²	6500	6000	5000	5000	4500	4200	4000	3500	2800	6000	5500	5000	4500	4300	3800	
Temperature Resistance (Short Term)	°C	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	
Temperature Resistance Long Term	°C	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
UV Resistance		Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	

Storage Store in dry shaded conditions between +5°C and +25°C.

Shelf Life 12 months when stored as recommended in original unopened packaging.

Important Notice

Given that there are a variety of factors that can affect the use and the performance of the TN021 product, it is essential that the user evaluate the TN021 product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

The statements and information contained herein are based on tests and data which believes to be reliable but the accuracy or completeness of such statements and information is not guaranteed. The user is responsible for determining whether a specific TN021 product is fit for a particular purpose and suitable for the user's method of application.

Foamed Acrylic Tape

Surface Preparation

1. Wipe the cleaning solution (AT200) onto the surface and scrub with a clean rag or paper towel until the surface is clean and dry. It is better to use one rag for cleaning and one rag for drying. Be sure to change rags or towels often to avoid smearing dirt around or contaminating the already clean surfaces. Cleaning has to be done until there is no visible dirt on the cleaning rag.
2. After cleaning and drying the tape can be applied.
3. If the substrate(s) require the use of a primer, then the substrates should be cleaned first, then primed following the directions specified on the primer.
4. If the substrate(s) require abrasion, then the substrates should be cleaned, abraded and then cleaned again.

Application

- The recommended application temperature is +20°C. The minimum application temperature is +10°C.
- Unwind the roll to expose the adhesive surface and place on to one of the surfaces to be bonded taking care not to stretch the tape
- Remove the protective release liner and carefully apply the other component. Where component positioning is critical, remove only the start of the release liner, position and hold the component onto the tape and pull out the remaining liner
- Apply firm pressure (15psi) to the component to consolidate the adhesive bond. Maximum adhesion will be achieved after approx 72 hours. Avoid stressing the bond in the first 24 hours.

Please Note

Do not use in applications where the tape will be constantly submerged in liquid. For external applications dark grey tapes are recommended to reduce the visibility of staining from rain washed dirt ingress and weathering.

Health & Safety Precautions

Safety data sheet must be read and understood before use.

Technical Service

tremco illbruck has a team of experienced Technical Sales Representatives who provide assistance in the selection and specification of products. For more detailed information, service and advice, please call Customer Services on 01952 251400.

Guarantee / Warranty

tremco illbruck products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with tremco

illbruck written instructions and (b) in any application recommended by tremco illbruck, but which is proved to be defective, will be replaced free of charge.

No liability can be accepted for the information provided in this leaflet although it is published in good faith and believed to be correct. tremco illbruck Limited reserves the right to alter product specifications without prior notice, in line with Company policy of continuous development and improvement.



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