Riding the wave of airtight technology

TP654 illmod TRIO 1050
High Performance Impregnated Tape from the Pioneers of Multifunctional Tapes
Across the UK and the EU, around 40% of energy consumption and 36% of CO₂ emissions result from operating buildings. In addition to this, leaks in the building envelope result in costly structural damage.

Since January 1st 2021, all new buildings have to be designed as nearly zero-energy (NZEB). Policies are also being developed and measures put into place which will encourage refurbishment into nearly zero-energy buildings.

The latest innovation from illbruck, TP654 illmod TRIO 1050, is a multifunctional tape which can help achieve these new requirements.

The unique “sandwich” geometry with wave structure inside, ensures airtightness at any joint width. The tape combines perfect performance with perfect installation properties – for reliable, high-quality results.
Absolute airtight contact with the wall and building element
The interaction of the intelligent film and the two grey foam layers ensure the absolute and continuous contact of the tape with the wall and the building element. The window joint with TP654 in it, therefore becomes an effective component of the required continuous airtight building envelope. The tested a-value of the airtightness is 100 % higher than required.

Driving rain-proof, high acoustic insulation
The innovative, multi-layer structure of the tape, consisting of the impregnated foam in the middle and the closed-cell grey foam on the outside, makes the joint driving rain-proof over 1,050 Pa - and is therefore 75 % above the requirements for MF1 tapes according to DIN 18542. TP654 also impresses in terms of acoustic insulation: the excellent value of 60 dB is achieved due to the extreme airtightness.

Keeps the joints dry
Due to the geometry with the unique wave structure, TP654 is vapour diffusion open. The variable humidity layer allows high humidity to escape from the joint. Depending on the difference between the outside and inside temperatures, the moisture in the air escapes to the outside. This conforms to the RAL-requirements of quality guaranteed installation. The joint is therefore able to dry and maintain its functionality, including optimal thermal insulation.

Perfect performance due to the wave cut and innovative sandwich structure

The unique, patent-pending geometry and the innovative material combination, ensures the best performance. This has been also tested and certified by class MF 1 of DIN 18542. With the new type of foam on the outside of the tape, the moisture-variable film in the wave structure and the proven impregnated foam inside, the tape forms the required continuous airtight layer.

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The tape with the perfect wave
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TP654 illmod TRIO 1050 – pioneering also in perfect installation

We have also considered reliable, user-friendly installation with the TP654 illmod TRIO 1050. The tape offers not only perfect performance, but also perfect installation properties. For reliability, simplicity, time saving and optimal long-lasting results, avoiding the prospect of remedial work.

**Easy and reliable selection**
Only two dimensions for joints of 6-25mm – resulting in more flexibility for stocking.

**Inside-outside confusion eliminated**
The moisture-variable layer allows TP654 to be installed either way round – there is no designated ‘internal’ or ‘external’ face, thereby avoiding confusion.

**Easy positioning of the window**
The new smooth surface structure of the outer foam makes it easy to position the window in the opening.

**Efficiency through fast installation process**
The TP654 rolls are up to 90% longer than other multi-functional tapes – less roll changes – even greater efficiency. And our proven, high-quality liner does not tear either. This makes installation quick and easy.

**No reworking**
The tape keeps its original length permanently, therefore possibility for air leaks has been eliminated, avoiding costly reworking.