

ToughStep®

Ideal for areas requiring a double-stick method or firm touch of luxury with ultra high density PU foam.

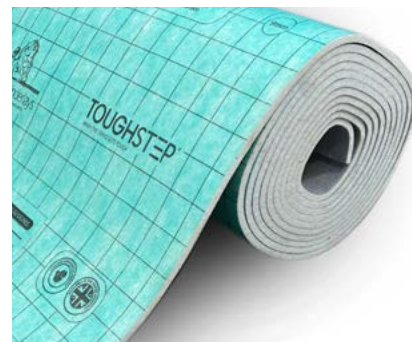


2.9 TOG
BS4745



45 dB (ΔLW)
BS EN ISO 10140-3 Impact Sound

ToughStep®	Testing Method	
Construction	PU & Viscoelastic Foams	
Density	165 kg/m ³	
Thickness	9mm	
Tog Rating	2.9 TOG	BS4745
Noise Reduction	45 dB (ΔLW)	BS EN ISO 10140-3 Impact Sound
R-Value	0.29m ² K/W	
U-Value	3.44W/m ² K	
Thermal Conductivity	0.031W/mK	
Area Coverage	10m ² (1.37m x 7.3m)	
Roll Dimensions	30cm x 30cm x 137cm	
Double Stick Applications?	Yes	



Recommended End Use Classifications

HC/U	Heavy contract use, suitable for heavy foot and wheel traffic and castor chairs
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Product Specifications

Top Surface	Non Woven Chequered printed backing suitable for permanent bond glue
Bottom Surface	PE Printed Backing suitable for slow release glue
Guarantee	Lifetime of initial carpet installation (when used in recommended areas), Wilsons bonding tape must be used
Installation Method	Important: Read instructions on final page

Environmental Credentials

Recycled Content	Environmentally Friendly: 100% recycled foam content, which is 100% recyclable after use.
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All underlay joins must be bonded with our Wilsons Bonding Tape to ensure the warranty is valid. It has been manufactured to work exclusively with our underlays.

And now for the science-y bit...
This is where you wish you'd paid more attention in school!!

Technical Specifications to BS EN 14499:2015 (BS5808)

Testing	Method
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Breaking Strength (maximum force)	≥30N in each direction	BS EN ISO 13934-1:2013
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Thickness loss of static loading short term after 1 h recovery

Fibrous underlay	≤ 40 %	ISO 3416:1986 (2012)
Non-fibrous underlay	≤ 15 %	
Combined underlay	≤ 40 %	

Thickness loss of dynamic loading

Fibrous underlay	≤ 40 %	BS ISO 2094:1999 (2015)
Non-fibrous underlay	≤ 15 %	
Combined underlay	≤ 40 %	

Thickness	≥ 4.0 mm	ISO 1765:1986 (2012)
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Thickness deviation from max to min

Fibrous or combined underlay	≤ 4 mm	ISO 1765:1986 (2012)
Non-fibrous underlay	≤ 3 mm	

Resistance to breaking or cracking	No cracks greater than 50 mm along the fold No cracks in backing	BS EN 14499:Annex A:2015
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Compression after dynamic loading	Minimum 2 mm, Maximum 8 mm	BS 4098:1975 (2003) and BS ISO 2094:1999 (2015)
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Work of compression after dynamic loading	Minimum 50 J/m ² , Maximum 200 J/m ²	BS 4098:1975 (2003) and BS ISO 2094:1999 (2015)
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Retention of original work of compression	≥40 %	BS 4098:1975 (2003) and BS ISO 2094:1999 (2015)
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Formaldehyde Testing Results

Time Interval (Days)	Formaldehyde (µg/m ³)
28	Not detected

Limit of detection for formaldehyde is 2.0 (µg/m³)

VOC Results:

Carcinogenic compound as defined in Annex VI to Regulation (EC) No. 1272/2008

	LCI value ⁺¹	Emissions @ 28 days	R Value ⁺² @ 28 days
Cas No.	µg/m ³	µg/m ³	Unitless
Not detected	Not detected	Not detected	Not detected

VOC Results: TVOC

Cas No.	µg/m ³	µg/m ³	Unitless
	N/A	Not detected	Not detected

Limit of quantification for VOC - 5 µg/m³ per component/
Limit of detection for VOC - 1 µg/m³ per component

The following compounds were detected below the limit of quantification - Dodecane, tetramethylbutanedinitrile, nonanal, xylene



Indoor Air Quality Test
Tested to ISO 16000

Regulation or protocol	Conclusion
French VOC Regulation	A+
French CMR components	Pass
Italian CAM Edilizia	Pass
ABG/AgBB	Pass
Belgian Regulation	Pass
EMICODE	EC 1 PLUS
Indoor Air Comfort	Pass
Indoor Air Comfort GOLD	Pass
Blue Angel (DE-UZ 156)	Pass
BREEAM International	Exemplary Level
BREEAM NOR	Exemplary Level
EU Taxonomy	Pass
LEED v4.1 BETA (outside U.S.)	Pass

Flammability Classification

Conforms to British Standards BS4790 flammability classification achieving a low radius result

ToughStep® Installation Instructions



Always remember to
follow Code of Practice:

BS 5325. 2001 Code of
practice for installation of
textile floor covering

First things first

Not all carpets are suitable for double stick installation so please check with the carpet manufacturer to ensure that they are happy with this method of installation. It is important to allow the underlay to acclimatise to room temperature for as long as practical, room temperature should be at least 18°C and the relative humidity should not exceed 65%.

The following instructions are intended to act as additional notes to this code of practice and to cover or emphasise those details relating to the installation of ToughStep. Please also refer to the specific instructions of the carpet manufacturer.

Sub floor conditions and floor preparation

In general sub floor conditions should comply with the requirements of the Code of Practice quoted above. A lot of effort goes into these standards and codes of practice with the aim of getting the best installation, so our advice is to take a look at them.

Basically, it says that all sub floors should be clean, dry, level and structurally sound and free from any cracks and contamination. All cracks and holes should be adequately repaired to ensure a smooth finished appearance, patching and levelling compounds must be suitable for the end use application and must be compatible with any adhesives that may be used. Very absorbent or dusty subfloors should be primed with a primer compatible with the adhesive to be used. Wooden floors showing warping, shrinkage or unevenness must be made good before continuing. Wax or varnish should be removed as these treatments can affect the adhesive bond.

Concrete floors laid direct to ground should incorporate a continuous damp proof membrane. Installation should only take place on subfloors where the relative humidity has fallen below 75% when tested in accordance with BS 5325: 2001.

Asphalt floors must be isolated by applying a compatible 3mm thick surface underlayment, this avoids any chance of migration of the asphalt to the carpet.

Temperature/humidity and conditioning

The ideal indoor temperature for installation is between 18-35°C, with a maximum air relative humidity of 65%. The subfloor temperature should not fall below 10°C and it is important that the carpet and underlay are stored on site at the same temperature as the areas to be installed.

Always install the carpet in accordance with the carpet manufacturer's instructions. These instructions are not exhaustive, if in any doubt please contact us.

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[wilsons-underlays.co.uk/terms-conditions](https://www.wilsons-underlays.co.uk/terms-conditions).

Installation

- 1 Lay the grey PE film side facing the subfloor (onto the tackifier) and the green non-woven side upwards facing the carpet with permanent bond glue.
- 2 Cut the underlay so that it is approximately 50mm over the length required around the perimeter of the room. The seams must be butted together without compression or gaps. Ideally the underlay should be fitted at right angles to the run of the carpet.
- 3 Once the underlay has been fully positioned trim to size leaving a gap around the perimeter if a tuck finish is required – the size of the gap will depend on the quality and thickness of the carpet – the carpet can be tucked into this gap between the underlay and the wall.
- 4 Then roll half of the underlay back to expose the sub floor for adhesive application. The tackifier/release adhesive coverage between the underlay and the sub floor will be dependent on local conditions, however applying the tackifier/release adhesive with a medium roller will not deliver the same bond strength as applying the same adhesive with a notched trowel, and the application rate should be as per the instructions of the adhesive manufacturer.
- 5 Always allow the tackifier/release adhesive to dry to a clear tacky state, placing the underlay into wet adhesive will result in a permanent bond. Once the adhesive has dried, lay the underlay into position securing to the subfloor using a glider or similar tool (heavy rollers can move and stretch the underlay). Repeat this procedure for the other half.



0 hours
curing time



1 to 2 hours
curing time
- 6 Next position the lengths of carpet prior to applying the permanent bond adhesive (it can be useful to place a plastic sheet over the underlay as this will help in positioning the carpet without dragging the underlay excessively).
- 7 Once positioned roll or fold back the carpet and apply the permanent bond adhesive to the underlay using a notched trowel as advised in the instructions of the adhesive manufacturer. Ensure that there is total transfer of adhesive into the carpet backing and that the adhesive is applied evenly and tight up to the walls to prevent any bubbling. After the required open time, place the carpet into the adhesive, smoothing out any air bubbles or creases with a glider or similar tool (again heavy rollers can move and stretch the carpet which can then move back leaving gaps after final cutting). Always glide the width of the carpet before the length to reduce the chance of stretching it and glide from the centre of the room to the perimeter.
- 8 If any seaming is required, the cut edges should be sealed with a proprietary seam sealant before they are laid into the wet adhesive. Make sure that you press the edges firmly into the adhesive during its open time.
- 9 Once the adhesive has grabbed the carpet sufficiently, trim in the edges to the perimeter. If there are any concerns about carpet shrinkage due to the carpet construction, atmospherics or the cleaning methods to be used subsequently, the use of gripper should be considered to provide extra resistance against movement away from the perimeter.



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THE BEST WAY TO TAKE CARE OF YOUR CARPETS