

# Wunderfelt® Diamond Range



Blend: 60% Premium Goat Hair, 40% Jute

United Bonded Fabrics (UBF) is Australia's foremost felt underlay manufacturer, with over 45 years of experience in manufacturing for the carpet industry.

The Wunderfelt® range of traditional jute and premium goat hair/jute underlay is recommended for the ultimate in luxury carpet feel and commercial performance. Wunderfelt® underlay provides excellent thermal and acoustic insulation properties, helping reduce heating and cooling costs while providing improved sound absorption and quieter rooms.

## Physical Characteristics

	CW60	CW70	
COMPOSITION	60% Hair, 40% Jute +/- 10%	60% Hair, 40% Jute +/- 10%	
CLASSIFICATION	Heavy Commercial (AS4288-1999)	Heavy Commercial (AS4288-1999)	
PRODUCT WEIGHT	1400g/m <sup>2</sup> +/- 140	1800g/m <sup>2</sup> +/- 180	
THICKNESS	12mm +/- 2	17mm +/- 3	
ROLL LENGTH	10m (optional 25m)	10m (optional 25m)	
ROLL WIDTH	1.83m	1.83m	
ROLL WEIGHT	64.05kg	82.35kg	
ROLL AREA	45.75m <sup>2</sup>	45.75m <sup>2</sup>	

## Performance Specifications

PROPERTY	CW60 (Typical Result)	CW70 (Typical Result)	REQUIREMENTS PER AS4288-1999	TEST METHOD
<b>BREAKING STRENGTH</b>				
Length (N/50mm)	75.3	94.1	40 minimum	AS2001.2.3.C
Width (N/50mm)	66.6	67.8	40 minimum	AS2001.2.3.C
Work of Compression (J/m <sup>2</sup> )	172	181		AS4288-1999
<b>LOSS OF THICKNESS</b>				
Static Loading (%)	38.7	30.8	40 maximum	AS2111.14
Dynamic Loading (%)	18.9	17.7	40 maximum	AS2111.2
Work of Compression after Dynamic Loading (J/m <sup>2</sup> )	161	138	50 minimum 200 maximum	AS4288-1999
Retention of Work of Compression after Dynamic Loading (%)	93	77	40 minimum	AS4288-1999 Appendix A
Deflection @ 100kpa after Dynamic Loading (Mm)	4.3	3.9	1.5 minimum 9 maximum	AS4288-1999 Appendix A

## Thermal Insulation Properties

The Thermal conductivities of various underfelts were tested in a calibrated heat flow meter according to AS/NZS 4859.1.

PRODUCT	THERMAL CONDUCTIVITY (W/m/°K)	NOMINAL THICKNESS (mm)	R-VALUE AT NOMINAL THICKNESS (m <sup>2</sup> K/W)
CW60	0.036	12	0.33
CW70	0.037	17	0.45

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## Acoustic Insulation Properties

Carpet and UBF Underfelts. The acoustic insulation property of Sound Absorption Coefficient as a function of noise frequency was measured using an impedance tube according to AS/NZS 1935.1. The measurements were taken with the underlay underneath 26oz 9mm cut pile nylon carpet. NRC values not rounded.

PRODUCT	SOUND ABSORPTION COEFFICIENT					NRC
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	
Carpet Only	0.04	0.06	0.10	0.12	0.34	0.16
Carpet + CW60	0.07	0.11	0.37	0.69	0.67	0.46
Carpet + CW70	0.12	0.17	0.46	0.71	0.64	0.50

## Acoustic Opinions, Impact Sound Insulation

The systems are predicted to provide impact sound insulation well in excess of the minimum BCA requirement of  $L_{n,w} + C_i$  not greater than 62 dB. Impact sound insulation tests commissioned by The Carpet Institute and carried out at CSIRO (Test references: AC173a, AC173b, AC173c, AC173d and AC173e). Noise Reduction Coefficient (NRC) tests carried out in accordance with AS/NZS 1935.1:1998.

PRODUCT	$L_{n,w} + C_i$	
	System A - Concrete Floor, No Ceiling	System B - Lightweight Floor, Ceiling
CW60	38	40

## Flammability Properties

Simultaneous tests for Ignitability Index, Spread of Flame Index, Heat Evolved Index and Smoke Developed Index have been tested in an independent test laboratory according to AS1530.3.

PRODUCT	IGNITABILITY (Range 0-20)	SPREAD OF FLAME (Range 0-10)	HEAT EVOLVED (Range 0-10)	SMOKE DEVELOPED (Range 0-10)
CW60	17	0	3	2
CW70	17	0	3	2

FOR FURTHER INFORMATION CALL 1300 554 424 OR EMAIL [customercare@unitedbonded.com.au](mailto:customercare@unitedbonded.com.au)

In most cases product testing has been conducted in laboratory situation under controlled conditions. Site-measured performance may vary due to installation quality and site conditions. Thermal testing has been carried out in accordance with AS/NZS 4859.1, and acoustic testing in accordance with ISO-354-2006 in certified reverberation rooms. As these products are subject to constant research and development, we reserve the right to update the contents without notice. Recommendations regarding the use of products are to be taken as a guide only, and the purchaser should independently determine the suitability of a product for the intended applications.

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