DATASHEET 1.01 RONADECK ULTRA BOUND



UV stable polyurethane binder for resin bound systems

FEATURES



UV stable



Delta E Value



No primer required



Pre-catalysed formulation



High strength system



SuDS compliant permeable system



Low VOC



Manufactured to BS EN ISO 9001:2015 Quality Management



20 year track record

RonaDeck Ultra Bound is a two component polyurethane resin which binds kiln-dried aggregates to produce a UV stable, SUDS compliant permeable surface. RonaDeck Ultra Bound provides an attractive porous surface which is strong enough for foot and light vehicle traffic.

RonaDeck Ultra Bound is designed for use on pathways, patios, driveways, pool surrounds.

Whilst RonaDeck Ultra Bound is supplied pre-catalysed, additional catalyst may be added on site. A guide on adding catalyst can be provided.



SPECIFICATIONS

Working Times - Winter Grade			
Ambient Temperature	5°C	10°C	15°C
Working Time	40-60 minutes	30-45 minutes	20-30 minutes
Lay before rain	3-4 hours	2-3 hours	1-2 hours
Pedestrian traffic after	12-14 hours	7-9 hours	5-7 hours
Vehicle traffic after	1-2 days	24 hours	15-17 hours

Working Times - Standard			
Ambient Temperature	15°C	20°C	25°C
Working Time	50-60 minutes	40-55 minutes	35-50 minutes
Lay before rain	6-8 hours	4-5 hours	3-4 hours
Pedestrian traffic after	24 hours	13-14 hours	9-12 hours
Vehicle traffic after	2-3 days	1-2 days	1-2 days

Working Times - Tropical Grade			
Ambient Temperature	25°C	30°C	40°C
Working Time	55-90 minutes	45-75 minutes	30-45 minutes
Lay before rain	5-6 hours	4-5 hours	2-4 hours
Pedestrian traffic after	24 hours	14-16 hours	7-8 hours
Vehicle traffic after	2-3 days	1-2 days	24 hours

Test Data - Polyurethane Binder - 2 part			
	Initial Results	After 1000 hours in QUV/se*	
Tensile Strength (N/mm²)	7.19 (7 days)	10.78	
E-modulus (N/mm²)	27.92 (7 days)	53.87	
Toughness (MJ/m³)	3.93 (7 days)	6.47	
Shore D Hardness	43 (14 days)	43	

Test Data - Polyurethane Binder + Aggregate			
	Initial Results	After 1000 hours in QUV/se**	
Compressive Strength (N/mm²)	13.12 (14 days)	18.08**	
Flexural Strength (N/mm²)	3.64 (14 days)		

RonaDeck Ultra Bound - Delta E Values in QUV/se			
	Initial	After 1000 hours	
ΔΕ	0	0.99	
Appearance	Clear and colourless	Clear and colourless	

QUV/se Method: ASTM G154 Cycle 1 (1000 hours).



PERFORMANCE UNDER UV LIGHT

Standard PU formulations achieve Delta E values in excess of 30 whereas RonaDeck Ultra Bound achieves a value of 0.99. Delta E values of 2 and below are not considered to be visible to the human eye. UV degradation of Standard PU formulations will reduce the

physical properties, in particular the elasticity, toughness and the impact resistance of the surface. Properties of RonaDeck Ultra Bound are unaffected by exposure to UV light.

APPLICATION THICKNESS

When mixed with kiln dried aggregates no larger than 6mm in diameter, the minimum application thickness is 15mm for foot traffic and 18mm for driveways.

AGGREGATE TYPES

Only mix with suitable washed and kiln dried aggregates.

APPLICATION CONDITIONS

Temperatures must be at least 5°C on a rising thermometer.

Application during rain or when rain is anticipated during the cure period is not recommended.

ENVIRONMENTAL IMPACT

The cured system is considered non-hazardous.

The material is manufactured in a BS EN ISO 14001:2015 accredited facility.

SHELF LIFE AND STORAGE

Shelf life of RonaDeck Ultra Bound is 6 months. Store materials in clean, dry, frost

free warehouse conditions between 5°C and 25°C. Protect from sunlight.

*QUV/se Method: ASTM G154 Cycle 1 (1000 hours). Tests carried in accordance with BS EN ISO 527-1:2019 and samples prepared in accordance with BS EN ISO 527-2:2012.

**QUV/se Method: ASTM G154 Cycle 1 (1000 hours). Samples placed in QUV/se chamber after initial results were obtained. Mix Design: 75kg Autumn Quartz 2-5mm, 25kg Autumn Quartz 1-3mm, 6.25kg C52 sand, 7.5kg RonaDeck Ultra Bound. Tested in accordance with BS EN 13892-2 and samples prepared in accordance with BS EN 13892-1

For more information please refer to technical data sheet.

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