Bostic Technical Data Sheet Boscodamp WB100 Water Based Vibration Damping Compound

Description

BOSCODAMP[®] WB100 is water based, high solids, fast curing, vibration damping compound. It is distinguished by the broad temperature range over which its exceptional vibration damping performance properties are effective. These damping properties are complemented by ease of use, environmental friendliness and low combustibility. This unique product offers an outstanding blend of performance and economy not found in other competing products.

BOSCODAMP[®] WB100 is supplied as a versatile non-sag paste designed for trowel, brush, roller and texture coat spray applications.

Cured films of BOSCODAMP[®]WB100 are UV resistant, water resistant and chip resistant allowing their use in areas subject to low grade mechanical abuse.

Design specifically for adhesion to metals, with extremely high adhesion to mild steel, galvanized steel, stainless steel and aluminium.

Unlike many damping materials, BOSCODAMP[®]WB100 is effective at low add-on weights, allowing it to be used in weight sensitive applications. eg. Marine and Automotive/Transport applications.

Vibration is absorbed by combining viscous, (energy dissipation) and elastic, (energy storage) characteristics. Vibration energy is absorbed within the material and converted to heat.

Features

- Broad temperature and frequency range
- Non toxic
- High water resistance
- Environmentally friendly
- Non-sag formulation
- Excellent adhesion to metal surfaces
- Hard chip resistant finish
- UV resistant
- Sprayable (texture coat or airless equipment)
- Fast drying
- Paintable
- Colour Grey

Benefits

- Eliminates panel drumming, tinniness and ringing
- Increases panel noise transmission loss
- Water based, easy application and clean up
- Performs under most ambient conditions
- Minimum weight for maximum performance
- Ideal for weight sensitive applications
- Excellent flame resistance

Application

Apply BOSCODAMP WB100 at temperatures above 5°C May be applied by texture coating equipment, Airless spray (> 45:1 & 0.035" tip) or brush Separate application guide is available on request.

Surface Preparation

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Surfaces must be clean, dry and free from oil, dust and other foreign materials



Recommended Uses

- Train Carriage
- Metal Deck Roof and Metal Wall cladding
- Machinery and Equipment enclosures
- Automotive panels and wheel arches
- Truck or bus underbodies,
- Boat hulls, ceilings, decks and bulkheads
- Machinery guards
- Stainless steel fabrications e.g. sinks, bowls
- Hospital equipment
- Heavy earthmoving equipment

Limitations – do not use in:

- acid/base corrosive environments
- oily environments engine oil or fuel. Note: An appropriate surface coating can protect it from these environments.
- continuous water immersion

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General Properties

Colour:	Grey
Specific gravity:	1.7 wet / 2.1 dry
Service Temp Range:	-10 [°] C to +80 [°] C

Fire Properties

Compliant to BS 6853 (1999) Category 2

Test Method	Result (Test report available upon request)
BS 476: Part 7 (1997) – Surface Spread of Flame	Class 1
BS 6853 (1999) Annex D.8.4 – Smoke Density	$A_0(ON) = 5.14, A_0(OFF) = 5.55$
BS 6853 (1999) Annex B2 – Smoke Toxicity	R value = 0.31
NFX 70-100 – Smoke Toxicity	C.I.T = 1.09, R value = 0.11
DIN 5510-2:2009-05 / DIN EN ISO 5659-2: 2007	CIT, 4min = 0.0546
Smoke Toxicity	CIT, 8min = 0.113
	$FED(t_{zul}=30min)=0.098$
	$FED(t_{zul} = 15 min) = \le 0.041$
AS/NZS 3837 : 1998 Cone Calorimeter	BCA Class 1

Coating Thickness Guide (Dry Film)

Substrate	Impact Excitation	Steady Vibration
Aluminium	≥ 0.5 x T	≥ 0.7 x T
Steel	\geq 0.7 x T	≥ 1.4 x T
Plastic	≥ 0.3 x T	≥ 0.5 x T

Note:

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T = Substrate Thickness.
 Maximum 3mm wet film per coat. Allow each coat to dry before the next application.
 Drying time at 20°C for 3 mm thickness coating is approximately 18 hours.

Calculating Dry Film Thickness based on Wet Film Thickness

Data: Volume Solids Content = 66% v/v

DRY FILM THICKNESS = wet film thickness x volume solids content

Calculating Wet Film Thickness based on Dry Area Mass

Data: Weight Solids Content = 80% w/w, Volume Solids Content = 66% v/v, Wet SG = 1.7, Dry SG = 2.1

WET FILM THICKNESS = [weight per m² / (%w/w solids content / 100)] / wet SG

Alternatively, calculation based on volumes:

WET FILM THICKNESS = (dry weight per m^2 / dry SG) / (volume solids / 100)





VIBRATION DAMPING PERFORMANCE

LOSS FACTOR:

Loss factor according to DIN 53-440: 0.092 (20°C, 200 Hz, 1 mm dry film thickness)

DECAY RATE: Vibration decay of coated plate steel, 'Geiger Plate'

Note: An uncoated Geiger Plate has a natural decay of 3dB/s. Inducing resonance of the Geiger plate has the effect of gonging a bell.



BOSCODAMP WB100 performs well as a vibration damping material across a broad temperature range -10 to +60°C. Some competitive materials operate well in the lower temperature range up to +25 to +30°C, due to the focus of application being the Marine Market, where elevated temperature performance above 30°C is not especially important. At higher temperatures +30 to +60°C these products often have little damping performance. It is the excellent damping performance over this extended temperature range that separates BOSCODAMP WB100 from other water based damping materials.



SMF26a 18.01.11



Storage & Shelf Life

Store out of direct sunlight. For maximum shelf life store between 5°C and 30°C. 1 year shelf life minimum DO NOT ALLOW TO FREEZE, otherwise the product will gel.

Health & Safety

Please refer to the Material Safety Data Sheet which is available on request.

Clean Up

Use warm or hot water to clean up before Boscodamp WB100 has fully cured.

Once dry, the cured coating can be removed with a heat gun and scraper. The surface residue may be cleaned away with Anchor-Weld[™] 901 Cleaner/Thinner.

Product Details

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	Item Number	Standard	Colour	Weight
		Pack Size		
		1 401 0120		
	364053	15 litros	Grov	20ka
	30-033	10 11103	Olcy	ZUKY
	365008	200 litros	Grov	300ka
	0000000	200 11165	Oley	JUUKY

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Product: Issue Date: Issue No.: Author: Division: Total Pages:	Boscodamp W 9/8/12 4 David Hitzler Industrial 4	/B100			Quality ISO 9001 TSI 6699 (Automotive).

