

Product description

Water-based, polymer-borne viscoelastic damping mass with low density and good fire retardant properties.

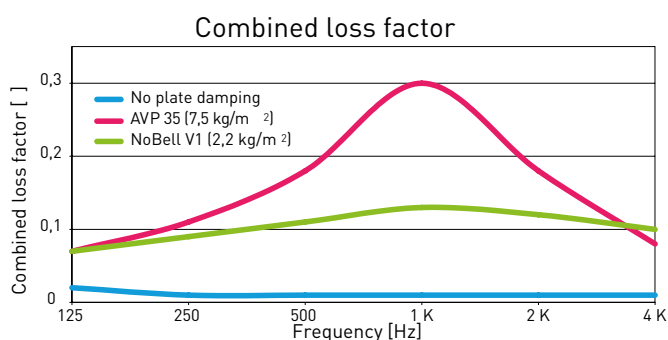
Application

Made to dampen sheet vibrations and structure-borne noise produced by either stationary mechanical oscillations or impulse influences. Since NoBell is a liquid damping mass, it is particularly suitable for applying to irregular surfaces. Typical applications are car bodies, railway wagons, diesel locomotives, ships, air ducts, doors, metal stairs, machine guards, internal fittings, conveying systems, household appliances, data systems, etc. NoBell is highly adhesive and water-resistant after drying. Due to its low density, it lends itself to be used in lightweight constructions. The damping mass is resistant to many solvents and oils after hardening. Also contains an anti-corrosion agent and has a thermal insulating ability.

Acoustic data

The material's vibration-damping characteristics are based on an increase in the loss factor. The loss factor is a measure of the vibrational energy which is converted into heat. The figure below shows the loss factor of a step of 2 mm galvanised steel plate with 8 mm diameter holes. The curves show the effect of applying AVP 3.5 mm sheet damping material and NoBell V1 damping mass, respectively.

The loss factor depends on temperature conditions. For example, the combined loss factor will be reduced by half if the temperature is lowered to 0 °C.



Consumption

For optimal resonance and sound damping, an even layer of dry 1.0–4.0 mm film should be applied, depending on the sheet thickness

The following table shows the approximate thickness and consumption of DC NoBell V1 when damping steel plates:

Plate thickness	DC NoBell V1 (dry)	DC NoBell V1 (wet)
1 mm	1.0 mm	1.6 mm
2–4 mm	1.5–2.5 mm	2.5–4.2 mm
5–8 mm	3–4 mm	5.0–6.7 mm

Assembly

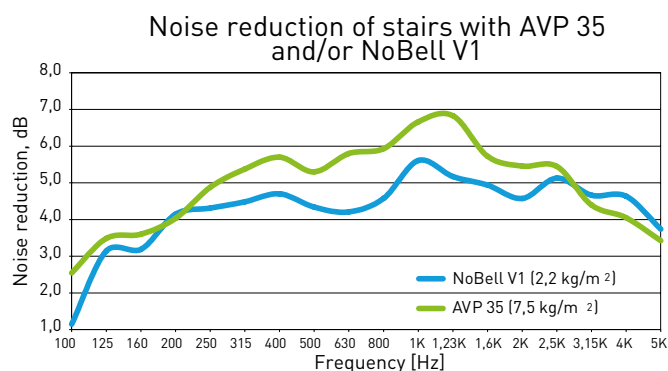
The achieved noise damping for the step is shown in the following figure:



NoBell can be sprayed, painted or rolled onto a cleaned surface. Untreated steel plates (stainless-steel plates) should

be primed prior to damping mass being applied. The damping mass is applied in layers in 0.5–1.0 mm wet film which has to dry before the next layer is applied. The drying time is 6–12 hours at normal room temperature. Lower temperatures increase the drying time considerably. The product dries and hardens in two phases. During the first 6–12 hours the water is eliminated, and over the subsequent 7–14 days, a chemical hardening takes place. The hardening time depends on temperature. After the first phase, the film is dry, and the damping effect will then be approximately 80 % of the damping which will be achieved after the second phase. A new layer of NoBell can be applied after about 12 hours, but it is recommended that you test a small area before application.

In case of lack of space, you can apply, for example, 50 % on either side of the metal sheet without altering the properties of the material. Immediately after spraying, the pressure feed container, tubing and spray gun should be cleaned thoroughly with water (this also applies to the barrel pump system).



	Product data
Density	990 kg/m ³ in wet state
Dry matter	64 ± 2 %
Application temp.	-30–+100 °C
Colour	Wet state: grey-white. After drying: light brown
Odour	None after drying
Dilution	Water
Packaging	1, 5, 20, or 200-litre metal containers. Also available in 0.6-litre spray bottles
Properties	VOLVO meets the standard STD 5031, 1 point S4.3(a)
Flash point	> 100 °C
Storage	6 months in unopened tins at +2 to +20 °C.