

# WALL- & ROOFCLADDING

## WITH AN NON-CON DROP LAYER

Isocab has two different particles sizes, each with its own name, but both of the same composition. These finishes have all purpose technical properties, but the degree of these properties varies according to the particle size and the thickness of the coating adopted.

### ISOCAB VIBRA

(fine particle size : 1 mm)

The Isocab Vibra finish is designed to solve the following problems :

#### 1. VIBRATIONS :

by appreciably reducing the amplitude of these vibrations

Test on a sheet of metal of 30 cm square and 0.8 mm thick, treated on one side with this finish in a coating of 1 kg square meter (giving 320 grams per square meter and 0.7 mm thick when dry) showed the following results:

Natural frequency of untreated metal:	13.5 c/s
Logarithmic decrement:	105.10-4
Frequency of the coated material:	13.7 c/s
Logarithmic decrement:	720.10-4

#### 2. IMPACTS:

problems of noise due to impacts

Tests on the same sample as before gave the following results compared with the untreated metal:

Total reduction:	7 decibels
Reduction at 300 c/s:	2 decibels
Reduction at 1000 c/s:	10 decibels
Reduction at 2500 c/s:	13 decibels

Subjectively the sound level emitted by a profiled sheet treated with 1kg of Isocab Vibra is reduced by 40 to 60 %.



#### 3. CONDENSATION

The following results were obtained on a similar test piece:

The test piece was exposed to water vapour for 10 hours and then left to dry for 14 hours (for 20 x 24-hours cycles).

It was weighed twice during each cycle once at the end of humidification and once at the end of drying; it was observed that after humidification the test piece had sometimes absorbed 300 grams of water per square meter and that this water had completely re-evaporated at the end of the cycle.

#### 4. ANTI-CORROSION

Various tests were made to determine the behaviour of the Isocab finishes in the presence or in contact with different acids and chemicals.

A series of test pieces of galvanised steel of aluminium 0.7 mm thick coated on both sides with a thickness of 0.7 mm Isocab Vibra were immersed in or exposed to the vapours of a whole series of acids such as:

Ammonia, nitric acid, hydrochloric acid, lactic acid, sulphuric acid, diesel oil, petrol and soda.

The immersion or exposure lasted for several weeks. The metals were protected in all cases.

#### CONCLUSION

This series of test proved that Isocab Vibra is an all purpose material which simultaneously solves different problems.





## ISOCAB-COUSTIC (medium particle size : 2 mm)

As its name applies, Isocab-Coustic is intended to solve certain acoustical problems by reducing room noise levels and airborne noise.

Its multicellular texture and granular surface give it properties which trap sounds and destroy parallelisms which generate echo phenomena. These properties are complementary.

Before application, Isocab-Coustic is in the form of a very thick paste, which can be applied in coats of 3 kg per square meter, 2mm thick, for greater thicknesses, the number of coats is increased.

It would be difficult to give results here, as these are different in each individual case, and depend on the form, volume and window areas in the rooms to be treated, and also on the volume or room noise and the finances available.

We can however say that in a surface or room used as a workshop or gym where approximately 80 % of the roof area can be treated with an application of 6 kg per square meter, giving a coating of approximately 4 mm thick, the subjective noise level could be reduced by about 50 %.

Isocab-Coustic also solves all the problems mentioned in connection with Isocab-Vibra, but to a greater extent, as the results are all due not only to the quality but even more to the thickness of the finishes.

**Names, properties and coefficients of Isocab vibra and Isocab coustic finishes**

Name	Dry thickness weight per m <sup>2</sup>		Anti-condensation capacity per m <sup>2</sup> in kg of water	Total damping of vibrations and impacts	Subjective acoustical correction assessed as average %
<b>Isocab Vibra 100</b>	0.7 mm	0.320 kg	0.300 kg	50%	8%
<b>Isocab Vibra 150</b>	1.0 mm	0.480 kg	0.400 kg	60%	10%
<b>Isocab Vibra 200</b>	1.4 mm	0.640 kg	0.500 kg	70%	12%
<b>Isocab Coustic 300</b>	2.0 mm	0.960 kg	0.600 kg	80%	25%
<b>Isocab Coustic 500</b>	3.5 mm	1.600 kg	0.800 kg	80%	30%