

IDROSOL A2

Waterborne topcoat class A2

In passive fire protection there is a need to use non-combustible coatings, not to downgrade the non-combustibility class of non-combustible substrates such as concrete, cement substrates, plasters, metals, plasterboard, calcium silicate slabs, mineral substrates.

In the construction industry within the scope of the Construction Products Regulation (CPR) it may be required to guarantee the A2 fire reaction class. This may be the case for escape routes or critical evacuation pathways.

A similar requirement is encountered in the field of naval construction (IMO, RINA standards) or railway construction (EN 45545).

Coatings, within the scope of EN 13501-1 are "non-substantial external components" of a non-homogeneous product provided that their mass per unit area is less than 1,0 kg/m² or their thickness is less than 1,0 mm.

For these components, point 10.7.3 of EN 13501-1 prescribes a gross calorific value ≤ 4.0 MJ/m². **IDROSOL A2** has a gross calorific value of 8.6 MJ/kg measured according to ISO 1716, as attested by the test report 1410_DC_REA_23 of the accredited testing laboratory CSI. IDROSOL A2 must be applied at a maximum spreading rate of 0.7 kg/m² (wet, as supplied) which once dried provides a dry film thickness of 280 μ m, more than sufficient to guarantee coverage and protective performance of the product. This corresponds to 0.427 kg/m² of dry film weight with a gross calorific value of 3.67 MJ/m² which guarantees the reaction to fire class A2.

kg/m ² wet	kg/m ² dry	μ m dry
0,700	0,427	280
	x 8,6 MJ/kg = 3,67 MJ/m ²	

Furthermore, the system as a whole (coating + substrate) must comply with a gross calorific value ≤ 3.0 MJ/kg. This is largely verified in all common systems where the coating/substrate weight ratio is well below 0.5.

For full technical data please also refer to the IDROSOL datasheet.

The above is deduced from the regulations in force today and based on certified measurements of the properties of our products, however it cannot constitute certification of the system, product or work. Evaluation and certification regarding the overall system are reserved for the fire engineer.

The information given herein is the result of extensive experimental work and our best experience. However it must be considered as informative only and we cannot accept any liability for its use, because of the wide variability of service conditions. We advise for specific application tests while confirming full availability of our technical service.

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