SPECIFICA TECNICA
TECHNICAL - PROCEDURAL DATA

IRIDAL A1

Class A1 waterborne paint

In the field of fire prevention, there is often a need to use non-combustible coatings in order to preserve the fire reaction class of non-combustible substrates such as cement-based materials, plasters, metals, plasterboard, calcium silicate boards, and mineral substrates.
In particular, in the construction sector within the scope of the Construction Products Regulation (CPR) and fire safety codes, it may be necessary to ensure Euroclass A1 reaction to fire in accordance with EN 13501-1. For example, the Italian Ministerial Decree of 15 March 2005 requires its use under Article 2 wherever products are required to possess non-combustibility characteristics (formerly referred to as Class 0).

IRIDAL A1 provides the solution to this requirement.

IRIDAL A1 is a special waterborne coating based on geopolymer technology.
It is weather-resistant and also suitable for interior applications, where it is recommended due to its absence of unpleasant odours and its virtually zero VOC emissions. When applied to mineral substrates, it offers excellent resistance to water and wet abrasion.

IRIDAL A1 should be applied to a clean, dry substrate, free from rust, oil, grease, and dust. It is particularly suitable for porous substrates, especially mineral ones. When applied to other types of substrates, adhesion should be assessed on a case-by-case basis.
Stir the product thoroughly, ensuring that any sediment or syneresis is fully reincorporated. An increase in viscosity and the formation of a soft sediment are normal and can be easily redispersed by thorough mixing.
For optimum performance, apply two cross coats, allowing approximately 24 hours between the first and second coats.
When applying by brush or roller, avoid overworking the product by repeatedly going over the same area. Instead, to prevent brush or roller marks, spread the coating quickly in one or two passes. Spray application—preferably using an airless system—provides excellent results when applied with cross passes. Check carefully to ensure that no runs or sags occur.

TECHNICAL CARACTERISTICS

Density (kg/dm^3)	1,55
Solids content (w/w)	57 %
Viscosity (cPs Brookfield)	Thixotropic
Ph	12
Minimum application temperature (°C)	+ 10
Minimum storage temperature (°C)	+ 5
Drying time (25 °C / 60 % u.r.)	3 hours touch, 24 hours complete

Coverage (120 µm wet)	96,5 % / class 3 according to ISO 6504-3
Gloss (60°)	3 / matt
Water vapour permeability	> 150 g/(m^2·g) – Sd < 0,14 m Class I according to ISO 7783-2 V1 - high according to EN 1062-1
Shelf life	1 year (temperature +5°C / +40°C, sealed container, not exposed to sunlight, kept from freezing)
Spreading rate	180-200 g/m^2 i.e. 8-9 m^2/l
Colour	White
Application	By brush, roller, airless spray
Thinning	Ready to use. If needed water max 10%
Gross Calorific Value ISO 1716 (MJ/kg)	0
ΔT EN ISO 1182 (°C)	1,5
Δm EN ISO 1182 (%)	28,7
Flaming EN ISO 1182 (s)	0

IRIDAL A1 provides excellent coverage and spreading rate and features high water vapour permeability, allowing moisture to escape from porous substrates while preventing loss of adhesion and blister formation.

IRIDAL A1 is washable and resistant to wet abrasion.

Supplied as standard in white, IRIDAL A1 can be tinted using a universal tinting system (water-based colorants), provided that only oxide-based pigments are used, at a maximum concentration of 5% by weight. This allows the production of pastel shades suitable for interior architectural applications. The specified limit must not be exceeded in order to avoid introducing significant organic content into the coating. Compatibility of the colorants used in the specific tinting system must be verified by the user prior to use.

REACTION TO FIRE PERFORMANCE

IRIDAL A1 is classified as **Euroclass A1** for reaction to fire in accordance with **EN 13501-1**. This classification is intrinsic to the product and is independent of the substrate on which it is applied.

The classification applies **only to the dried coating** and should not be interpreted as transferring its fire performance characteristics to the substrate. Assessment of the complete system (primary substrate plus any additional layers), in accordance with **EN 13501-1**, must be carried out, as appropriate, by a qualified fire safety professional or an accredited testing laboratory.

When IRIDAL A1 is applied to a substrate, the reaction-to-fire classification of the system shall be assessed in accordance with Clause 11.8.2 (non-homogeneous products) of EN 13501-1. If the substrate is non-combustible and classified as Euroclass A1, the complete system will also achieve Euroclass A1.

Many mineral and inorganic construction materials are deemed to satisfy the requirements of Euroclass A1 without the need for testing. A list of these materials is provided in Annex 2 of the Italian Ministerial Decree of 25 October 2007.

RAPPORTI DI PROVA E CLASSIFICAZIONE

EN ISO 1182	CSI 0727\DC\REA\26_1
EN ISO 1716	CSI 0727\DC\REA\26_2
EN 13501-1	CSI 0727\DC\REA\26_3

The claims above are deducted from the regulations in force today in the EU and based on certified third-party measurements of the properties of our products, however it cannot constitute certification of the system, product or work. Evaluations regarding the overall system are reserved for the fire prevention engineer.

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