



# FIRE RETARDANT PAINTS AND COATINGS



## Fire safety in buildings

Fire safety in buildings is one of the basic requirements for construction products in the EU Construction Products Regulation, CPR.

Fire safety in buildings primarily concerns personal safety, but also includes the protection of material values. Data from fire accidents indicates that smoke and toxic gases cause the majority of deaths. Smoke and toxic gases kill long before the temperature has risen, or flames have developed. Consequently, the main design requirement from a personal safety perspective is that buildings are constructed and configured to ensure that people can get to safety and the emergency services have the capacity to respond in the event of a fire.

There are two main types of fire paint; Fire Retardant Paints and Fire Resistant Paint, the latter also known as Intumescent Paint.

Fire Retardant Paint's main purpose is stopping flame and fire spreading over a given surface. They do this by releasing a flame dampening gas once they become hot. Once their effectiveness has been proven they can be applied to walls, floors and ceilings in any space. In certain areas e.g., public areas such as hotels, hospitals, schools etc., it is imperative that the correct level of fire resistance is achieved to ensure that all relevant laws and legislation are adhered to.

## Fire classification of materials: Reaction to fire (fire growth)

If a fire should occur, it is important that the building can be evacuated as quickly as possible in order to save lives. The time available for evacuation depends on the building materials and their fire properties.

The fire safety in construction products is determined through Euro-classes.

The Euro-classes were introduced following a resolution by the Commission (2000/147/EEC) from February 8, 2000 to create a common platform for the comparison of the fire properties of construction materials. Fire testing of the products is conducted in accordance with harmonised testing methods.

## Fire resistance tests for Euro-classes:

- *Fire resistance tests for building products – Non-combustibility, EN ISO 1182.*
- *Fire resistance tests for building products – Determination of calorific potential, EN ISO 1716.*
- *Fire resistance tests for building products – Building products, except for flooring materials exposed to thermal heat from a gas burner (SBI), SS-EN 13823.*
- *Fire resistance tests for building products – Ignitability of products subjected to direct impingement of flame – Part 2: Single-flame source test, EN ISO 11925-2.*
- *Fire resistance tests of floorings – Part 1: Determination of the burning behaviour using a radiant heat source, EN ISO 9239-1*

The main properties to determine the Euro-class for a specific product is its non-combustibility, ignitability, flame spread, calorific value as well as the development of smoke and burning droplets. Depending on the outcome of the various properties, the product is assigned a fire classification as shown in fig. below.

		Euro class		Example	
Additional classification		A1		A1, A2	Stone wool, gypsum board
		A2		B	Painted gypsum board
	s1, s2,	B		C	Gypsum board with paper-based wallpaper
	s3, d0,	C		D	Wood
	d1, d3	D		E	Fire-retardant EPS
	d2	E		F	Non-tested materials, EPS
		F			

- Class A1 is non-combustible and the requirement level and cannot be combined with any additional class.
- Class A2 is also classified as non-combustible as no flashover occurs for the application of the products in these classes.
- For classes A2 to D there are additional classes for smoke development **s1**, s2 or s3, and the amount of burning droplets emitted **d0**, d1 or d3 (e.g. A2-s1, d0). This is the category where our paint is classified.
- Class E only has additional class d2.
- Class F means that the product is not documented, the product does not meet the criteria for any class, or the manufacturer has not provided the fire properties for the product. Class F cannot be combined with any additional class either.
- When establishing the Euro-class for pipe insulation, the sub-index "L" is used (e.g., A2L – s1, d0).

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#### **Additional classes for smoke development**

**s1** the structural element may emit a very limited amount of combustion gases

**s2** the structural element may emit a limited amount of combustion gases

**s3** no requirement for restricted production of combustion gases

#### **Additional classes for burning droplets**

**d0** burning droplets or particles must not be emitted from the structural element

**d1** burning droplets or particles may be released in limited quantities

**d2** no requirement for restriction of burning droplets and particles

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## **JUNO's range of fire rated products**

JUNO's fire rated paints and coatings are designed in such a way that they do not contribute to the development of fire and smoke.

As a result of extensive research and development, Juno Paints is at the forefront of developing fire retardant products that meet the current European legislations.

Hence we can offer products almost within any category of paint, allowing architects and interior designers the freedom to work without any restrictions as to design, aesthetics, colours and finish, at the same safeguarding their keeping with fire safety regulations.

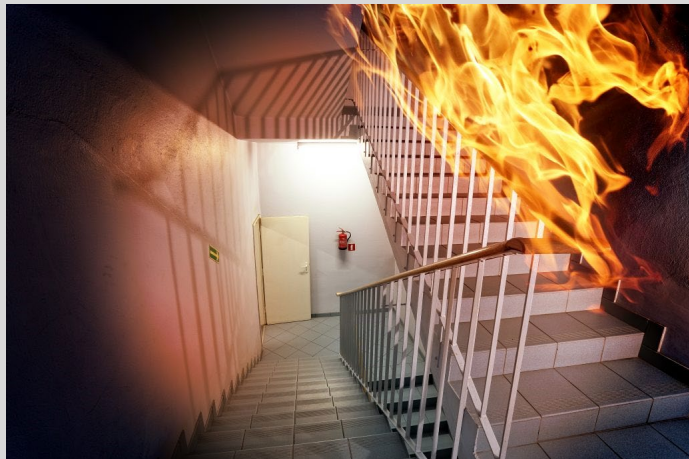
The term "Fire retardant" in JUNO's range is more the norm, rather than the exception. We've standardized the term retardant in our range, to guarantee any type of paint requirements and in keeping with fire regulations.

JUNO Paints offers more than 35 products certified with the B-s1, d0 certification in the following categories:

- *Façade/Exterior Coatings*
- *Interior wall and ceiling paint*
- *Trim enamels for metal (water and solvent based)*
- *Masonry Paint*
- *Silicate Paint*
- *Floor Paint*
- *Floor Epoxy (Euro-class Bfl,s1)*
- *Primer (Solvent base)*
- *Polyurethane (Solvent base)*

## Protect different types of surfaces and materials with JUNO Paints

Our fire retardant products are considered safety coatings which make the surface somewhat immune to fire. These paints do not make the surface 100% fireproof but prevent them from catching fire and slow down the burning process. This phenomenon is possible through the special properties of fire retardant paint. When the coating becomes dramatically heated, it releases gas which dampens flames.



Our fire retardant paint is suitable for tested and classified construction material including any metal type substrate, and any substrate with Euro-Class Fire Classification A2-s1,d0:

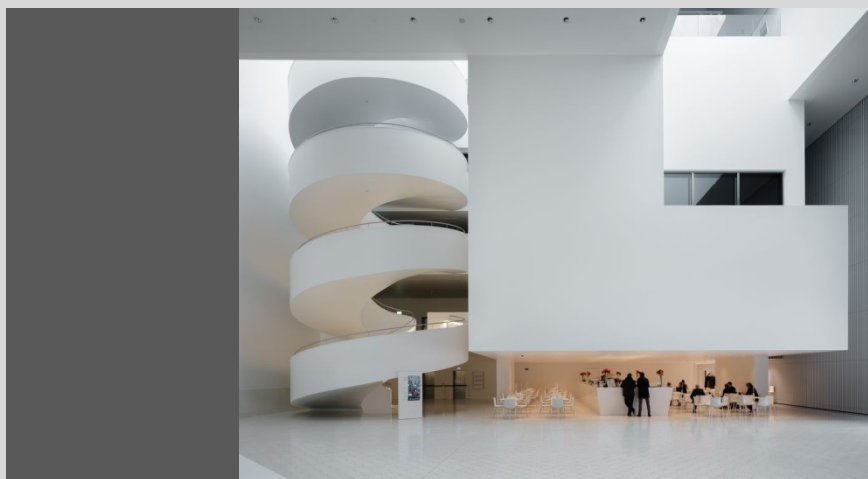
- Brick, Stone, Tiling
- Plaster and plasterboards
- Metals
- Concrete
- MDF (medium density fibreboard)

Suitable applications for JUNO's fire retardant paints and coatings include cladding, doors, floors, walls and ceilings. Fire retardant paint is suitable for indoor and outdoor use, and with our wide product range there is no limitation to colours or finishes.

### - JUNO PAINTS FIRE RATING ACCORDING TO EURO CLASS SYSTEM -







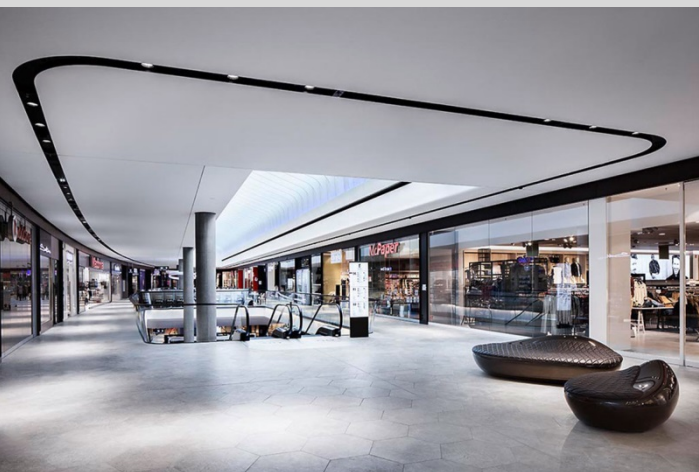
# FIRE RETARDANT





# PRODUCT RANGE

2  
0  
2  
2





## Exterior Paints



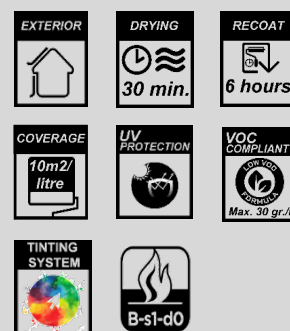
### Junokril



Junokril is a premium quality paint for exterior use. A high opacity, acrylic paint for use on exterior masonry surfaces. Its tough flexible finish gives long life protection.

Its unique technology is specially conceived to protect outdoor façades with a tough flexible finish, for long life protection from the extremes of weather. Resistant to alkali, humidity, weathering and mould. Prevents concrete carbonation and offers UV protection. Available in Satin and Matt Finishes.

**Tintometric bases for color mixing.**



### Bikril



Bikril is an exterior quality emulsion paint based on water-dispersed high quality resins. Waterproof, alkali resistant with water vapor permeable and UV radiation resistant properties. Particularly suitable for use in changeable weather.

Provides a tough, flexible coating that helps prevent film from peeling or flaking. Excellent opacity.

Suitable and ideal for the protection and decoration on most exterior masonry and rendering (including concrete, roughcast, pebbledash and brickwork which is normally suitable for painting, such as rustic or sand faced bricks) where a quality finish is required.

Available in Satin (Softsheen), Silk (Eggshell) and Matt Finishes. Bikril is also ideal for interior decoration, due to its smooth and resistant finish.

**Tintometric bases for color mixing.**



### Other products in this category

#### Super Juno-Rev



Super Juno-rev masonry coating is a professional quality, smooth exterior emulsion paint. It has an attractive high build finish and provides excellent coverage and application.

Super Juno-rev is based on water-dispersed acrylic copolymer resins. This product is waterproof and permeable to water vapor and provides exterior durability and protection even in harsh and demanding environments. Contains anti-mould preservatives and has anti-carbonation properties.

Protects concrete surfaces against carbonation and presents excellent adherence and external performance properties. Excellent resistance to the levels of atmospheric humidity normally experienced in harsh exterior environments.

Product conceived to protect and decorate exterior mineral surfaces from carbonation, rain, humidity and micro-organisms. Hence provides excellent resistance to mild atmospheric fume attack and to the salts in new mortar, rendering and similar surfaces.

Ideal for painting pebble dash and K-render.

**Tintometric bases for color mixing.**



62560 A-5000. Professional Acrylic Exterior Coating

75362 Silicato. Silicate Masonry Paint

71055 J-300. Professional Vinyl High Satin Interior/Exterior Coating

71063 J-3000. Professional Vinyl Medium Satin Interior/Exterior Coating

## Interior Decorative Range



The B-Range – B-12, B-10, B-7, B-5, B-4



JUNO's B-Range consists of premium quality vinyl and acryl copolymer based paints that incorporate broad spectrum anti-fungicide and bactericide additives.

These emulsion paints have exceptionally tough, easy-clean finish with outstanding resistance to dirt pick-up. They give excellent coverage and application properties.

Suitable for all interior walls and ceilings and dry to a beautiful smooth finish.

Available in matt and semi-matt finishes.

B-7 is a 0-VOC Certified product.

Tinting system colors available.



*Junoprof Combina – Junomatic Tinting bases for interior decoration.*



Calibrated premium quality interior emulsion designed for Junomatic Tintometric System, with anti-mold preservatives. Formulated for use on walls and ceilings. Junoprof is based on acrylic copolymers dispersed in aqueous medium. Thousands of colors available via Junomatic Tinting System.

Recommended for general interior decoration works on surfaces of blockwork/brickwork, cement render, concrete, plaster, plasterboards, gypsum, wallboards, etc. Protection and decoration of interior walls and ceilings where a quality matt finish is required. Junoprof is a low odour paint providing a tough finish. Ideal for home decoration, hotels, hospitals and public buildings.



Interior emulsion  
tinting bases for  
any colour



## Interior Professional Range



J-25



JUNO's J-25 Contract Matt is professional quality, high opacity, quick drying matt emulsion for both old and new surface areas. Acrylic copolymer based paint formulated with titanium dioxide and extenders. Provides a tough and durable matt finish that is ideal for high traffic areas. Wipeable and offers good stain resistance. Suitable for all normal interior wall and ceiling surfaces. Suitable for wall and ceiling decoration, and anywhere wet-rubbing resistance and a bright white and matt finish is required. Ideal for application on new plaster.



J-33



Water-based emulsion paint with excellent properties and practical coverage, based on acrylic copolymers in aqueous emulsion. Due to its extra matt finish, it is ideal for concealing imperfections on large surfaces in light areas. Allows for cleaner application on site due to its non-splatter formulation. Anti-mould protection. Recommended for indoor applications especially on large surfaces leaving a flat, deep matt finish, regardless of the light angle. Eliminates flashing and removes imperfections, leaving smooth surface. OPAK is a high opacity product.



N-5



Washable water-based emulsion paint in compliance with UNE 48-243-94 Standard, Type II for excellent washability. (5000 wash cycle test) N-5 provides ultimate resistance to stains, grease and smudges, and provides easy stain removal due to its excellent washability despite having a matt finish. All-purpose paint suitable for construction and decoration of substrates such as gypsum, plaster, concrete, cement, etc.

N-5 has a unique formula making it ideal for withstanding the wear and tear of high traffic environments.

Ideal for:

- New and maintenance work
- Residential, Institutional and Commercial sites
- Properly primed surfaces: plaster, drywall, fibre-boards, masonry and wood.
- Walls, ceilings, and trim where a highly washable matt finish is required.



Castor-N



All-purpose paint suitable for construction and decoration of substrates such as gypsum, plaster, concrete, cement, etc.

Castor-N is washable a matt emulsion paint in compliance with UNE 48-243-2007 Standard, Type I for excellent washability. (1000 wash cycle test)

Castor-N provides ultimate resistance to stains, grease and smudges, and provides easy stain removal due to its excellent washability despite having a matt finish.

CASTOR-N has a unique formula making it ideal for withstanding the wear and tear of high traffic environments.

Ideal for:

- New and maintenance work
- Residential, Institutional and Commercial sites
- Properly primed surfaces: plaster, drywalls, fibre boards, masonry and wood.
- Walls, ceilings, and trim where a highly washable matt finish is required.



## Metal and wood trim paint and primers



### Junolac

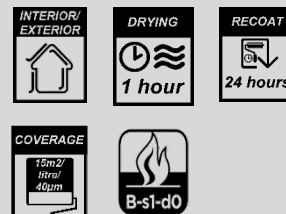


Junolac – High quality alkyd based gloss and satin finish for general use, where good covering, gloss and durability are required. Ideal for building and industrial use, on many surfaces.

Excellent hiding power, lead free, and contains no hazardous solvents.

Uses: Can be used on many surfaces including new and previously painted wood, metal, brick and stone. Ideal for industrial, agricultural and domestic use. For example, machinery, gates, warehouse doors, steel frames, railings etc.

**Available in 12 bases and three finishes.**



### Aqualac



Aqualac is a waterborne enamel based on quick drying acrylic resins, giving excellent exterior performance. Low odor & very fast drying. Developed to have many characteristics of an alkyd enamel.

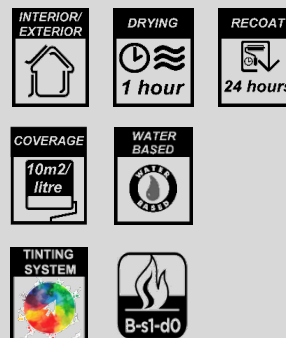
Provides outstanding hardness, brushability, adhesion, and scrubability.

Features:

- Excellent adhesion, flow and leveling.
- Excellent hiding power and coverage.
- Hardness & Splatter resistant
- Interior/Exterior Formula
- Weather resistant

Ideal for interior & exterior doors and trim, wood, masonry and metal surfaces.

**Available in RAL and NCS colors, 5 bases and three finishes.**



### Junoplus



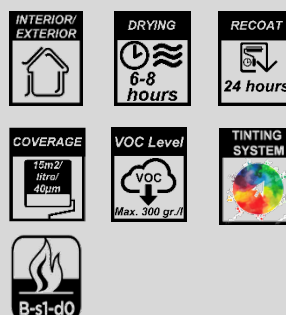
Junoplus – High quality alkyd based gloss finish for general use, where good covering, gloss and durability are required.

Ideal for building and industrial use, on many surfaces.

Can be used on many surfaces including new and previously painted wood, metal, brick and stone.

**Available in more than 20 colors and tinto-metric bases for color mixing.**

**Gloss, satin and matt finishes.**

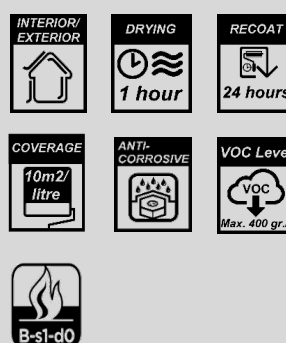


### Multi-support Primer



Multisupport is a rust-inhibitive primer that will go over most firm surfaces. Premium quality quick drying multi-use primer based on modified alkyd resins and zinc phosphate acting as anti-rust pigment. This solvent borne multipurpose primer can be used as an impregnating and adhesion promoting primer for ferrous metals, steel, galvanized surfaces, PVC and wood (indoor) etc. Formulated for long-term protection.

Benefits: Good weather and corrosion resistance. Good bonding characteristics. Excellent hide and coverage. Can be used on Steel buildings Heavy equipment, Pipelines, Railings, Tanks, Cranes, Structural steel, Oil field equipment, Trucks, Tractors, Construction equipment, Machinery etc.



## Water based Floor and Metal coatings – 2 Pack



Dynapok 2/C  
water based



Dynapok Agua 2/C Waterbased Epoxy is a low odor paint, with high resistance to heavy cleaning. Ideal for application onto many substrates including concrete, timber, primed steel, previously painted surfaces etc.

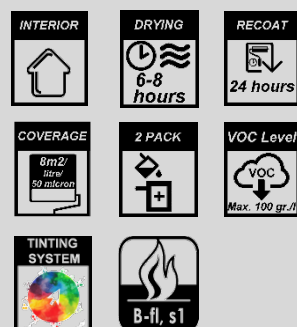
Specially recommended for application on walls and floors, and suitable for veterinary clinics, surgeries, infirmaries, ambulatory care centers, circulation areas or waiting rooms.

Also ideal for laboratories, milking parlours, restaurants, hotels, nurseries, kitchens, food processing facilities, and all those places where superior protection and heavy cleaning is required and environment and public health is of concern.

Dynapok Agua features superior durability, and has a very low VOC rating. (<40 grams/l)

When supplied with antibacterial agents it can prevent the formation of algae, fungi, bacteria and microorganisms.

**Available in 4 Standard colors and in Tintometric System as per requirement.**



## Water based Floor and Metal coatings – Single Pack



Junosol



Junosol – Based on water emulsified styrene acrylic resins providing good flexibility and hardness. Excellent bonding and abrasion resistance.

Dustproof and quick drying low odour floor paint suitable for car parks, agricultural installations, sports facilities etc. Suitable for application on asphalt surfaces. Adds a clean and tidy touch to industrial and farming installations.

**Available in 5 standard colors.**



## Solvent-based Floor and Metal coatings – 2 Pack



Junoretano 2/C  
polyurethane



Junoretano is a high performance two component polyurethane enamel coating based on hydroxylated acrylic resins in combination with inert pigments and a multi-purpose aliphatic isocyanate hardener.

Provides maximum resistance to chemicals including certain acids and solvents, as well as to abrasion, light, UV and weathering.

Junoretano features high elasticity, hardness, adherence and perfect smooth finish. Slip resistance may be customized with additional aggregate.

Junoretano protects all kinds of surfaces, such as metal, concrete, Glass Reinforced Polyester, Wood, or PVC, particularly where maximum ageing and abrasion resistance is required, either to weathering, chemical agents or heat of up to 150°C. Also ideal for farming machinery and industrial vehicles.

**Available in a broad range of colors through its tintometric System.**





## Water-based Floor and Metal coatings – 2 Pack

### Dynapok Agua 2/C Epoxy



A two-component water-based epoxy enamel. The product is based on epoxy resins with exceptional surface protection offering excellent chemical resistance and hardness. Product highly recommended for poor ventilated areas, avoiding high toxic atmosphere when applied.

**CERTIFICATIONS:** Fire Retardant Cert. Bfl-s1 and Slip Resistance Cert. Class 3  
The coating forms a hard, protective finish that resists chemicals, abrasion and corrosion, and is conceived to protect concrete coatings in general industry and especially food industry in particular, as well as hospital applications. Works great on walls and wet areas thanks to its water base composition.  
Excellent adhesion—can also be applied to damp surfaces, hence recommended for concrete surfaces where moisture is difficult to eliminate completely. Ideal for interior spaces with reduced access to ventilation, where conventional paints with organic solvents, would be toxic. Examples are interior parkings, garages, basements etc.  
Dynapok Agua can also be used as a finish coat to protect metal surfaces exposed to water, grease, acids or alkalis.  
Dynapok Agua is also suitable as a primer or as intermediate coat to seal moisture and for asphalt products such as tar, bituminous products and slurries.

Available in a broad range of colors through its tintometric System.

**For full listing of our fire retardant products see our general product catalogue and look for the following icons;**



## Intumescent paints

Juno also distributes PROMAT and NULLIFIRE Water-Based Intumescent Coatings. Contact us for more information.



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