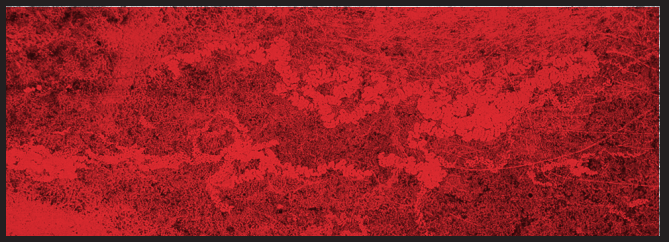
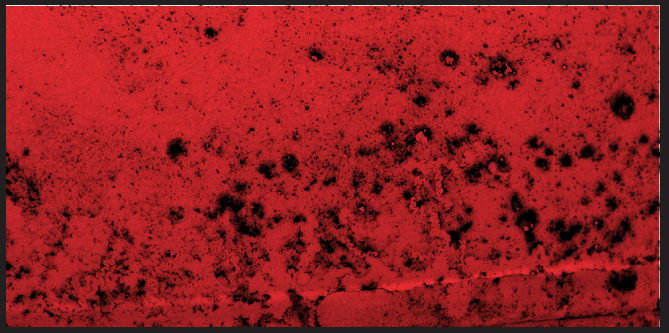
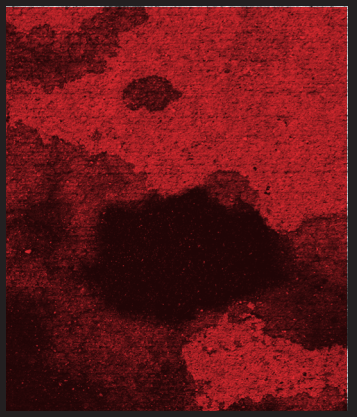
JUNO

PAINTS







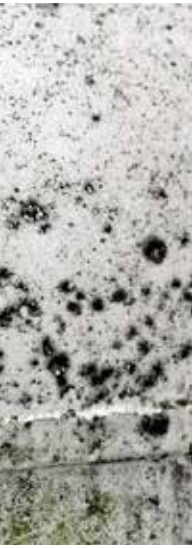
PROBLEM-SOLVER GUIDE FOR DIFFERENT PATHOLOGIES

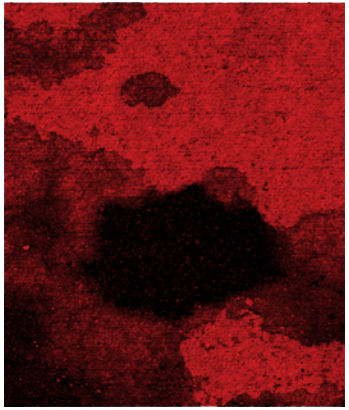
Introduction

This problem-solver guide includes the most frequent pathologies that have been detected over the years, and aims to help you quickly identify the causes of and the recommended solutions for the most common problems for paints, primers and stains.

On the last pages you will find a list of all the products referred to in this guide.

If you don't find an answer here, be sure to ask your local JUNO sales representative for additional expert advice or contact JUNO's Prescription & Projects department by e-mail: prescriptions@junopaints.ie





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PATHOLOGIES

PATHOLOGY

Mould

Description

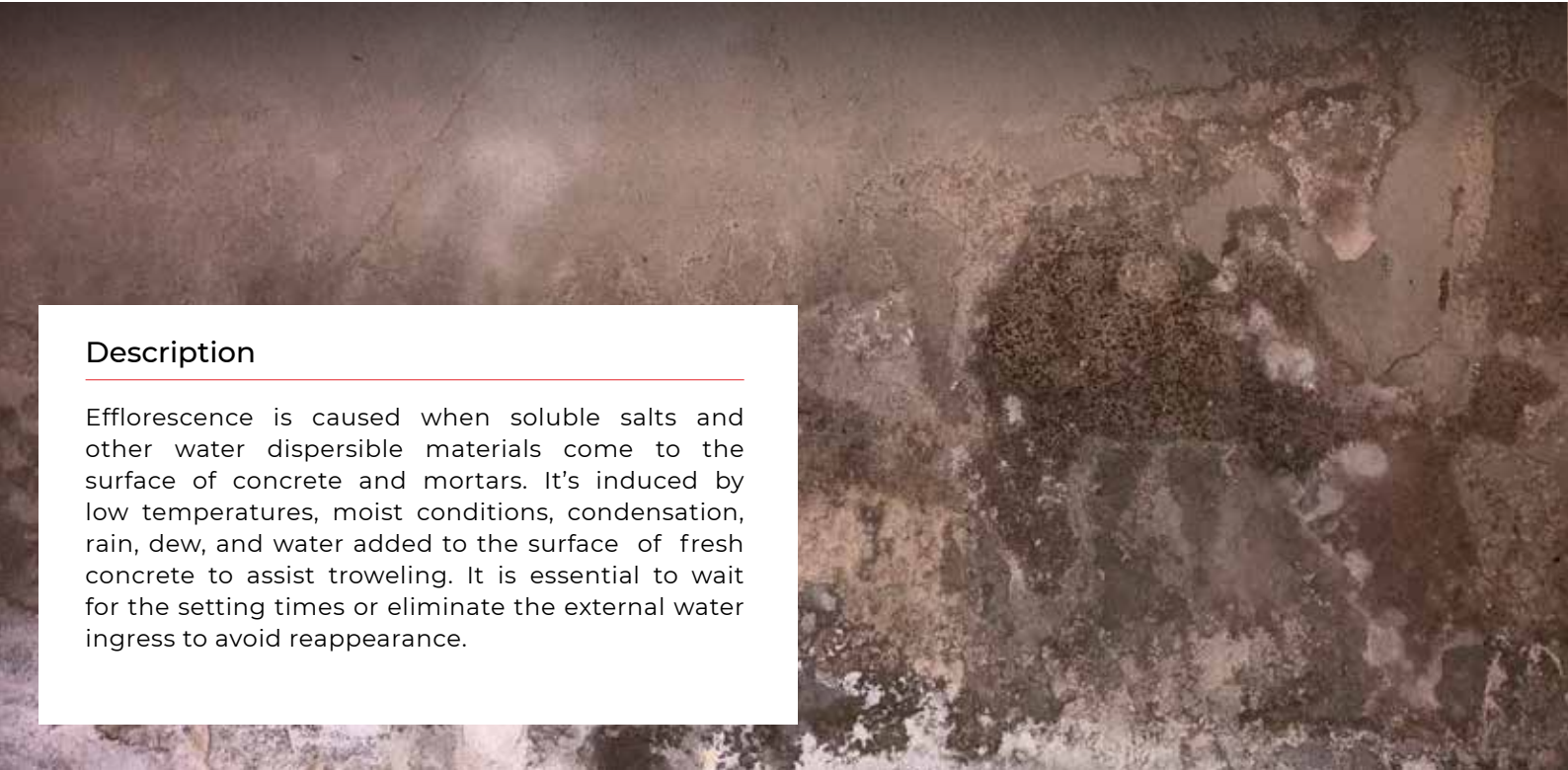
Black, grey, green or brown areas on the painted surface. Moisture is an essential requirement for the development and growth of moulds and they are especially likely to occur in conditions of high humidity or on surfaces with a high moisture content. Eliminating the origin of this pathology is key to preventing its appearance in the future (eg. condensations on walls).

Substrate	Treatment	Primer	Topcoat
Brick, cement, plaster	Once mould has been removed, wash the surface with Junoclean. Then rinse with water and let dry completely. Use a primer suitable for the substrate in question, and in the case of walls, use a mould-proof paint or add Misky-Misky additive to the paint used.	**Interior:** Tapamanchas Odourless Stainblock **Exterior:** Primerlite	**Interior:** Anticondensation & Junoprof **Exterior:** Novokril or Junokril **Water-proofing:** Elastiflex **Hydrophobic:** Siloxane Sealer
Cement floors		**Interior:** Imprimax or Dynapok Agua Primer **Exterior:** Imprimax primer	**Interior:** Pavimyc or Dynapok Agua WB Floor Epoxy **Exterior:** Junoretano
Asphalt surfaces		**Interior/Exterior:** Dynapok Agua Primer	**Interior/Exterior:** Junosol (self-priming) **Interior:** Dynapok Agua WB Floor Epoxy

Suggested paint systems. Not excluding alternative solutions.

PATHOLOGY

Efflorescence



Description

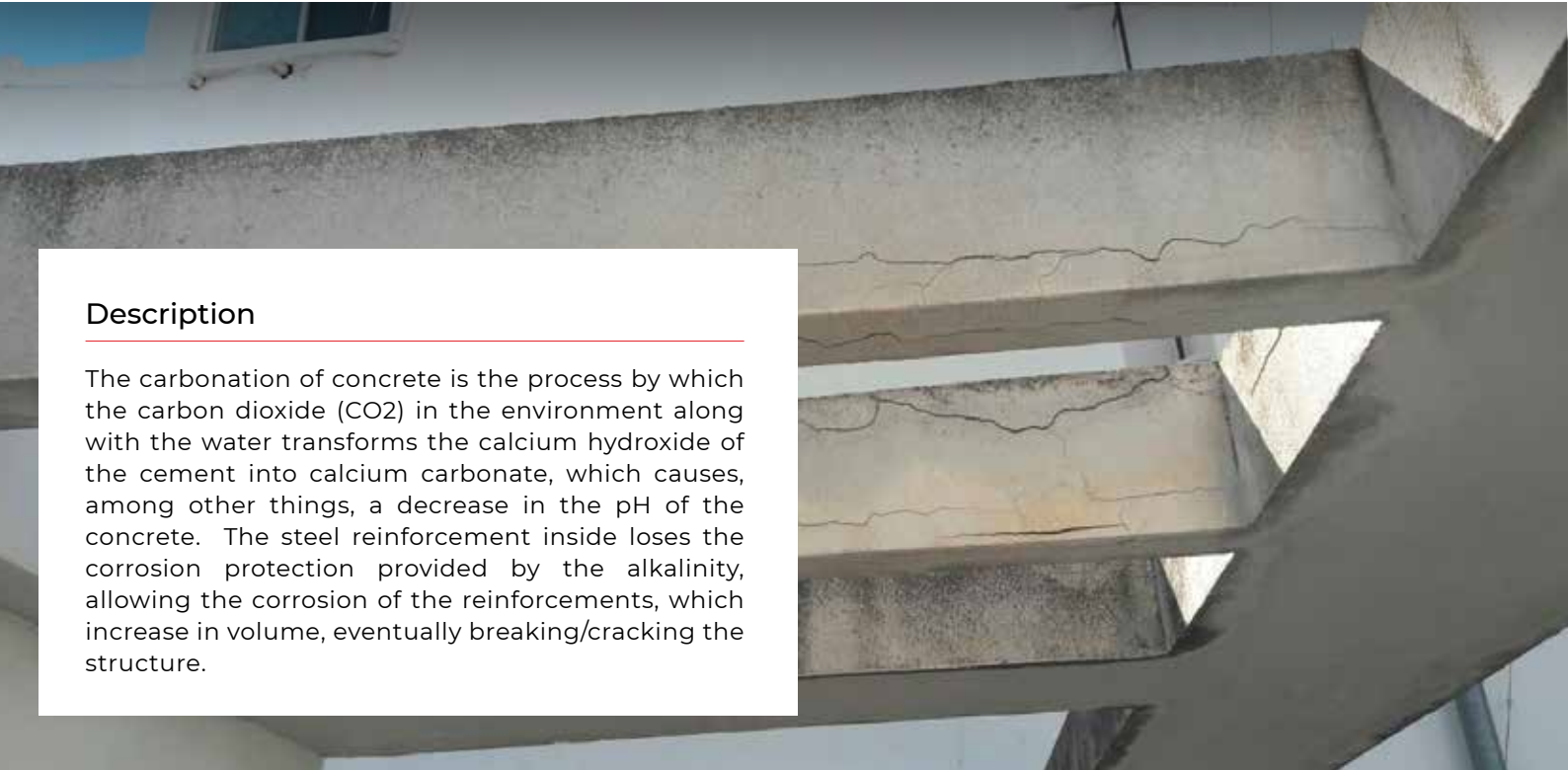
Efflorescence is caused when soluble salts and other water dispersible materials come to the surface of concrete and mortars. It's induced by low temperatures, moist conditions, condensation, rain, dew, and water added to the surface of fresh concrete to assist troweling. It is essential to wait for the setting times or eliminate the external water ingress to avoid reappearance.

Substrate	Treatment	Primer	Topcoat
Brick, cement, plaster	Once the water ingress is removed, brush and wash the surface with a solution of 10% hydrochloric acid or 10% Zinc sulfate. Rinse with water and let dry completely before painting. On walls it is advisable to use a pliolite primer that acts as a barrier and a waterproof paint. On floors, once the humidity has been checked, apply an epoxy primer and finish with epoxy enamel (interior) or with polyurethane enamel (exterior).	**Interior/Exterior:** Primerlite	**Interior:** B-5, Junoprof or J-28 **Exterior:** Novokril, Silicato or Junolite Façades
Cement floors		**Interior:** Imprimax or Dynapok Agua primer **Exterior:** Imprimax	**Interior:** Pavimyc,Dynapok Agua WB Floor Epoxy, Dynamol **Exterior:** Junoretano or Dynamol (Self-priming)

Suggested paint systems. Not excluding alternative solutions.

PATHOLOGY

Carbonation



Description

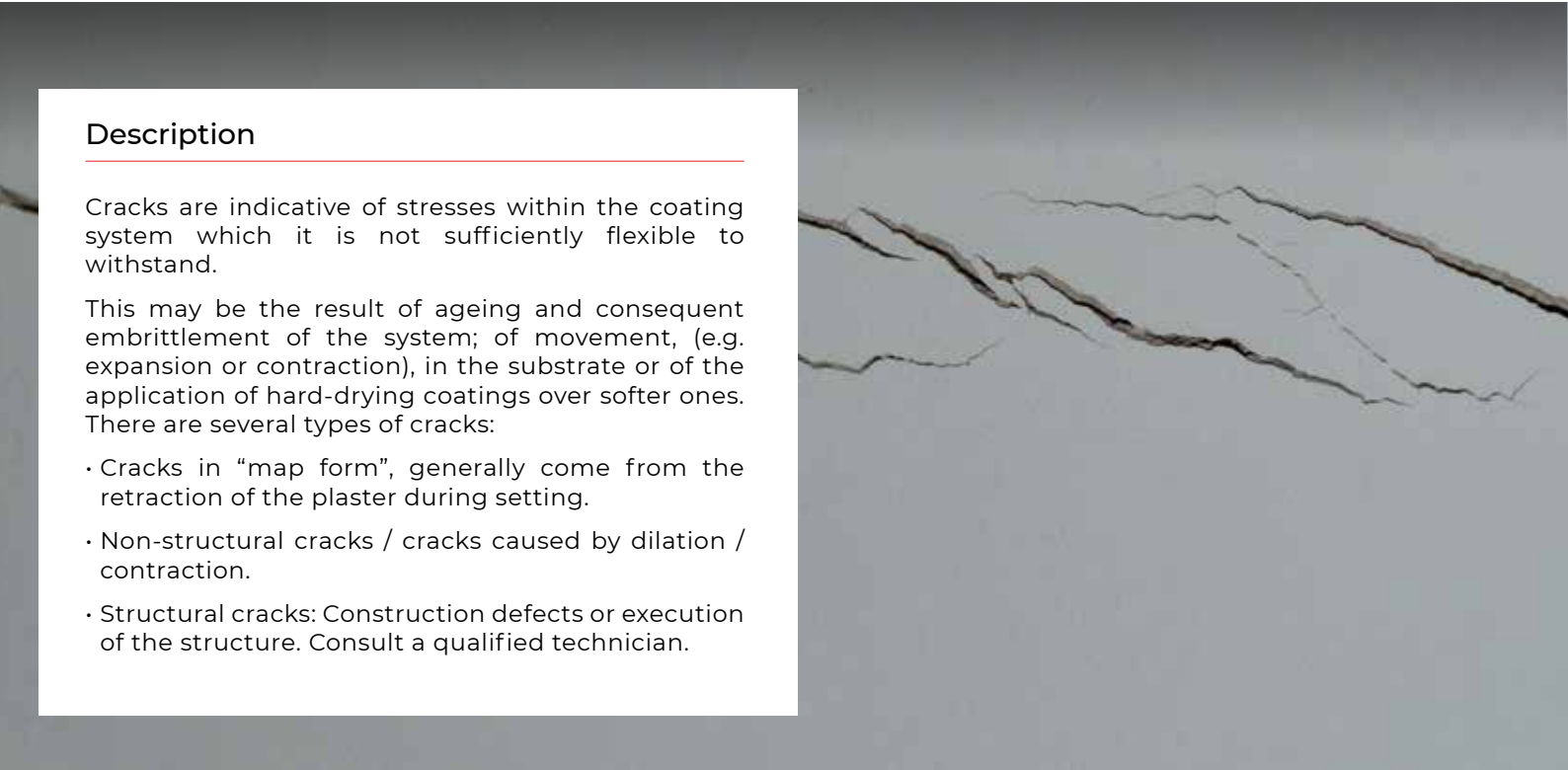
The carbonation of concrete is the process by which the carbon dioxide (CO2) in the environment along with the water transforms the calcium hydroxide of the cement into calcium carbonate, which causes, among other things, a decrease in the pH of the concrete. The steel reinforcement inside loses the corrosion protection provided by the alkalinity, allowing the corrosion of the reinforcements, which increase in volume, eventually breaking/cracking the structure.

Substrate	Treatment	Primer	Topcoat
Reinforced concrete	Once the structure is passivated and repaired, apply a primer and paint with anti-carbonation properties.	**Interior/Exterior:** Primerlite	**Interior/Exterior:** Junokril, Bikril or Super JUNO-Rev
Cement floors		**Interior:** Imprimax or Dynapok Agua Primer **Exterior:** Imprimax	**Interior:** Pavimyc, Dynapok Agua WB Floor Epoxy or Dynamol **Exterior:** Junoretano or Dynamol (self-priming)

Suggested paint systems. Not excluding alternative solutions.

PATHOLOGY

Cracks



Description

Cracks are indicative of stresses within the coating system which it is not sufficiently flexible to withstand.

This may be the result of ageing and consequent embrittlement of the system; of movement, (e.g. expansion or contraction), in the substrate or of the application of hard-drying coatings over softer ones. There are several types of cracks:

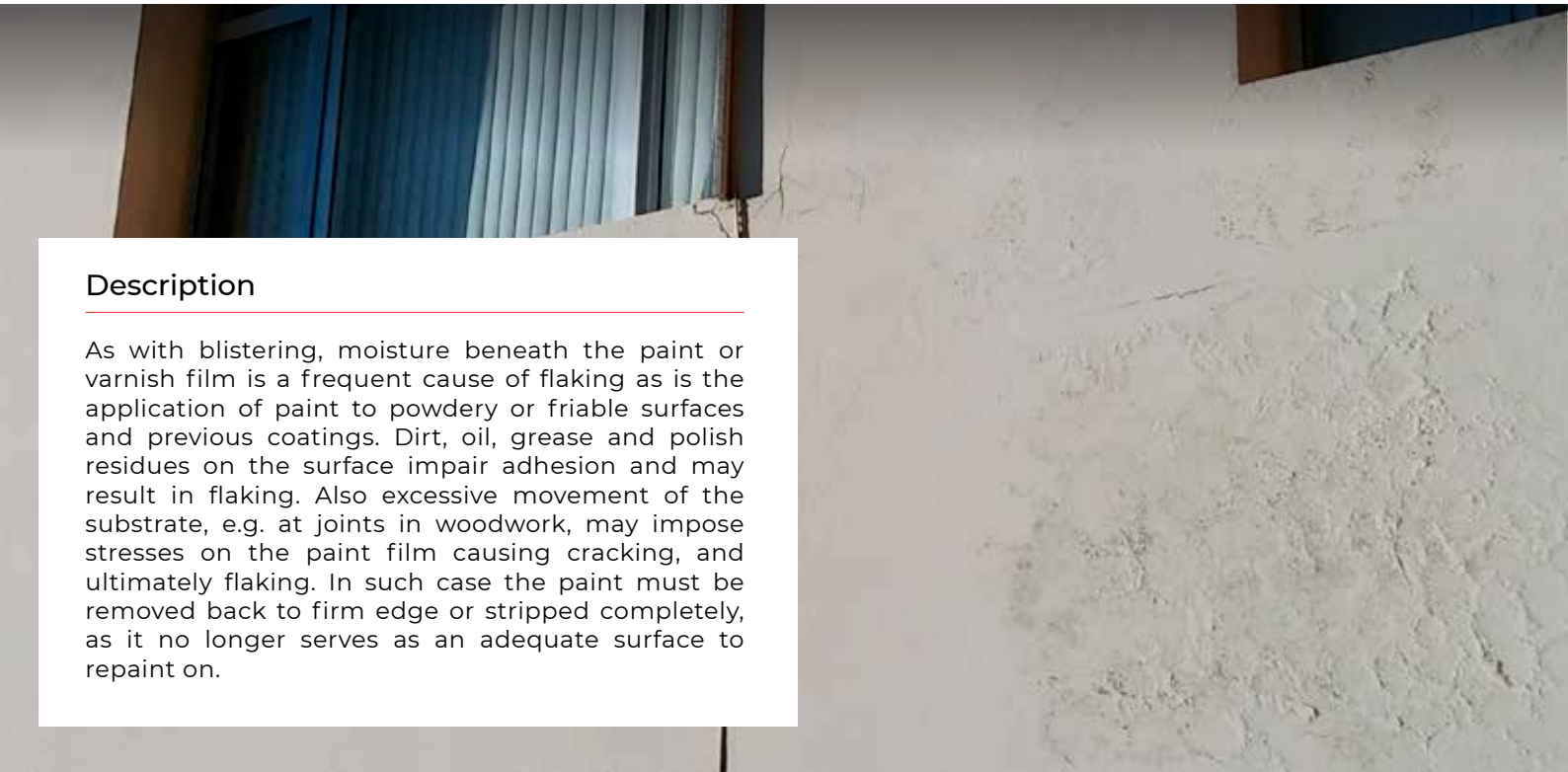
- Cracks in “map form”, generally come from the retraction of the plaster during setting.
- Non-structural cracks / cracks caused by dilation / contraction.
- Structural cracks: Construction defects or execution of the structure. Consult a qualified technician.

Substrate	Treatment	Primer	Topcoat
Brick, cement, plaster	**Map-shaped cracks:** • <1 mm: Fill with JUNO Plaster or JUNO PlasteRAP • > 1 mm: Broaden crack in wedge shape, remove dust, apply Hidrocril, fill with acrylic filler and top with JUNO PlasteRAP. For larger cracks use a fiberglass mesh. **Non-structural cracks:** • Alive/moving cracks: Seal with polyurethane putty. • Dead/non-moving cracks: Widen the crack and fill with repair mortar.	**Interior:** Hidrocril **Exterior:** Primerlite	**Interior:** B-10, Junoprof, N-5 or Cubrefix **Exterior:** Elastiflex Plus, Elastiflex, Novokril or Junokril
Cement floors	Repair the cracks with a suitable mortar according to manufacturer's specifications. Apply an epoxy primer and finish with two coats of enamel.	**Interior:** Imprimax or Dynapok Agua primer **Exterior:** Imprimax primer	**Interior:** Pavimyc, Dynamol or Dynapok Agua WB Floor Epoxy **Exterior:** Junoretano or Dynamol (self-priming)

Suggested paint systems. Not excluding alternative solutions.

PATHOLOGY

Peeling & Flaking



Description

As with blistering, moisture beneath the paint or varnish film is a frequent cause of flaking as is the application of paint to powdery or friable surfaces and previous coatings. Dirt, oil, grease and polish residues on the surface impair adhesion and may result in flaking. Also excessive movement of the substrate, e.g. at joints in woodwork, may impose stresses on the paint film causing cracking, and ultimately flaking. In such case the paint must be removed back to firm edge or stripped completely, as it no longer serves as an adequate surface to repaint on.

Substrate	Treatment	Primer	Topcoat
Brick, cement, plaster	Remove affected areas completely by sandblasting or use JUNO Paint Remover. Once treated, prime for proper adhesion of the new paint.	**Interior:** Hidrocril **Exterior:** Primerlite	**Interior:** B-12, Junoprof or B-10 **Exterior:** Novokril, Junokril or JUNO-Rev
Wood metal		**Interior/Exterior:** Multisupport primer, Waterprim, Metalex (for metal) or Hangers sealer (wood)	**Interior/Exterior:** Aqualac, Junolac anti-oxidant or Junoplus
Floors		**Interior:** Imprimax or Dynapok Agua primer **Exterior:** Imprimax	**Interior:** Pavimyc, Dynapok Agua WB Floor Epoxy or Dynamol **Exterior:** Junoretano or Dynamol (self-priming)

Suggested paint systems. Not excluding alternative solutions.

PATHOLOGY

Chalking

Description

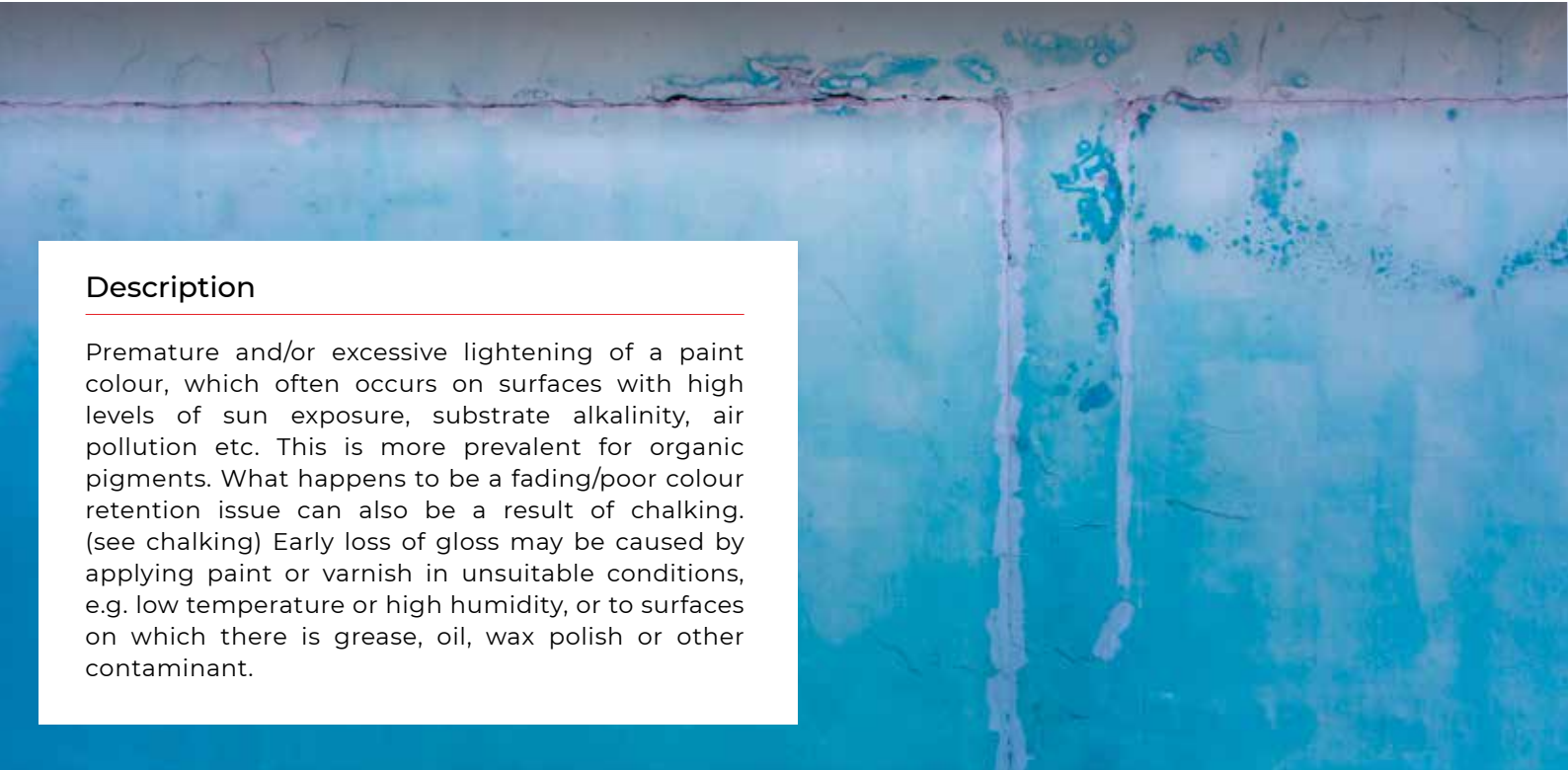
Chalking is the formation of fine powdery residues on the surface of the paint film during weathering and exposure to UV rays due to the binder losing its properties, thus exposing the pigments and the paint's load matter. Easily detectable by running your hand over the paint and observing dust residues. Heavy residues of chalking due to ineffective priming or omitted coats of paint, are likely to cause problems when repainted unless all the paint is removed.

Substrate	Treatment	Primer	Topcoat
Brick, cement, plaster	No need to remove the existing paint as long as it is well adhered. Important to clean with pressure washer and consolidate with an appropriate sealer/ dustproofer.	**Exterior:** Hidrocril or Akril-80	**Exterior:** Novokril or Super JUNO-Rev **Impermeabilizar:** Elastiflex Plus
Wood metal		**Interior/Exterior:** Multisupport primer, Waterprim, Metalex (metal) or Hangers sealer (wood)	**Interior/Exterior:** Aqualac, Junolac anti-oxidant or Junoplus
Floors		**Interior:** Imprimax primer or Dynapok Agua primer **Exterior:** Imprimax primer	**Interior:** Pavimyc, Dynapok Agua WB Floor Epoxy or Dynamol **Exterior:** Junoretano or Dynamol (self-priming)

Suggested paint systems. Not excluding alternative solutions.

PATHOLOGY

Fading



Description

Premature and/or excessive lightening of a paint colour, which often occurs on surfaces with high levels of sun exposure, substrate alkalinity, air pollution etc. This is more prevalent for organic pigments. What happens to be a fading/poor colour retention issue can also be a result of chalking. (see chalking) Early loss of gloss may be caused by applying paint or varnish in unsuitable conditions, e.g. low temperature or high humidity, or to surfaces on which there is grease, oil, wax polish or other contaminant.

Substrate	Treatment	Primer	Topcoat
Brick, cement, plaster	If the paint is in good condition, it can be repainted directly. In the event that the discoloration comes from high alkalinity levels of the substrate, a pliolite primer should be applied, followed by a high quality paint finish.	**Exterior:** Primerlite	**Exterior:** Novokril*, Junokril* or Super Junorev * Recommended in Satin finish
Wood metal		**Interior/Exterior:** Multi-support primer, Waterprim, Metalex (metal) or Hangers sealer (wood)	**Interior/Exterior:** Aqualac, Junolac anti-oxidant or Junoplus
Floors		**Interior:** Imprimax primer or Dynapok Agua floor primer **Exterior:** Imprimax primer	**Interior:** Pavimyc, Dynapok Agua WB Floor Epoxy or Dynamol **Exterior:** Junoretano or Dynamol (self-priming)

Suggested paint systems. Not excluding alternative solutions.

PATHOLOGY

Flaking

Description

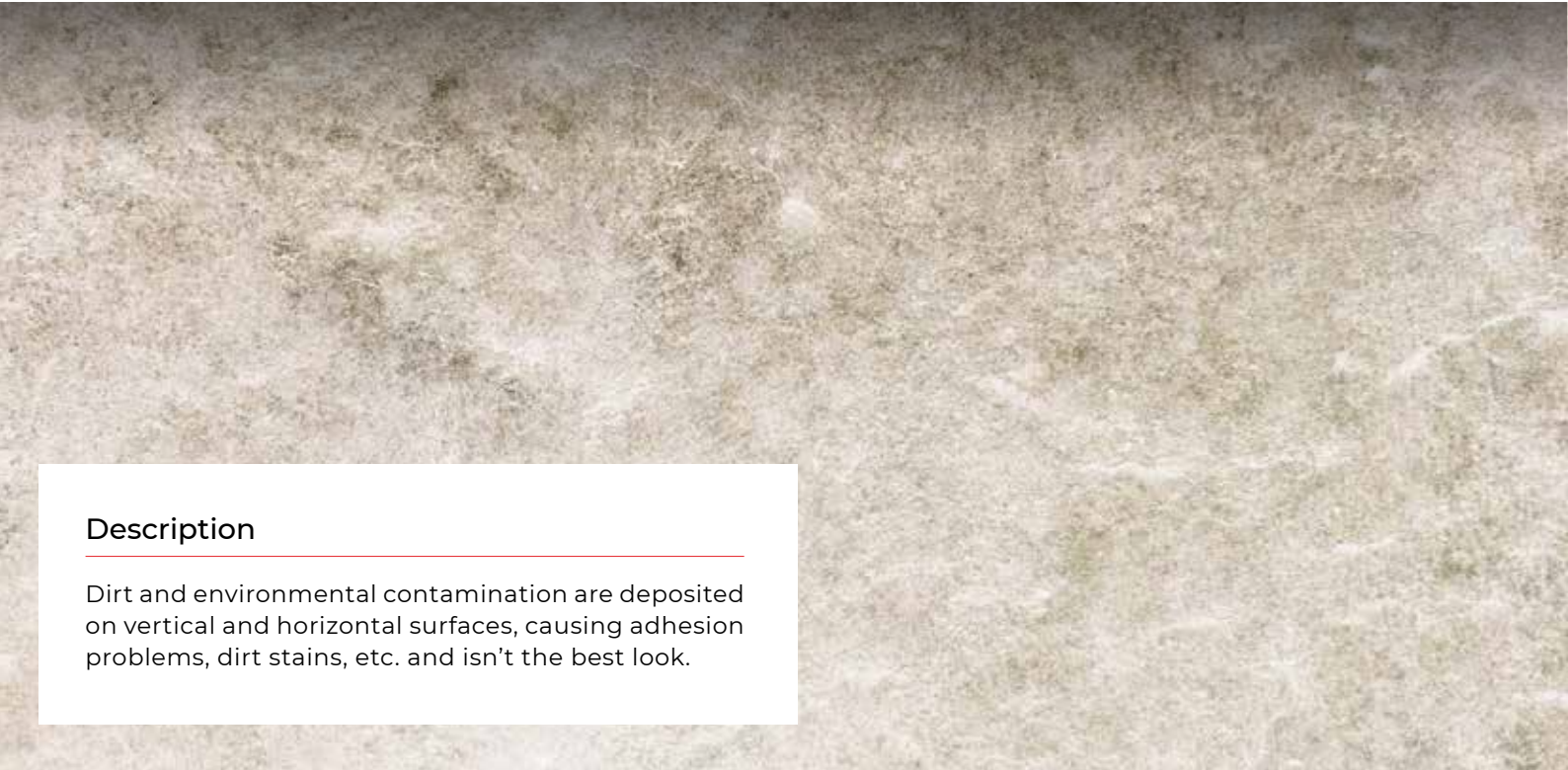
The splitting of a dry paint film through at least one coat, which will eventually cause flaking and chipping. Early on, the problem appears as hairline cracks; later, flaking and chipping occurs. Sometimes on exterior masonry the surface seems to be in good condition but the plaster is not adhered to the wall, causing pieces of mortar to come off. When tapping with a hammer, it should not sound “hollow.” If the flaking is extensive or the overall adhesion of the system is doubtful, the surface should be stripped completely before repainting.

Substrate	Treatment	Primer	Topcoat
Cement & Plaster	Clean and remove loose flaking parts and clean the surface with JUNO Plaster or JUNO PlasteRAP. Prime the entire surface with pliolite primer to prevent premature degradation of the new coating.	**Interior:** Hidrocril **Exterior:** Primerlite	**Interior:** B-12, Junoprof or N-5 **Exterior:** Novokril, Junokril or JUNO-Rev

Suggested paint systems. Not excluding alternative solutions.

PATHOLOGY

Dirt & Contamination



Description

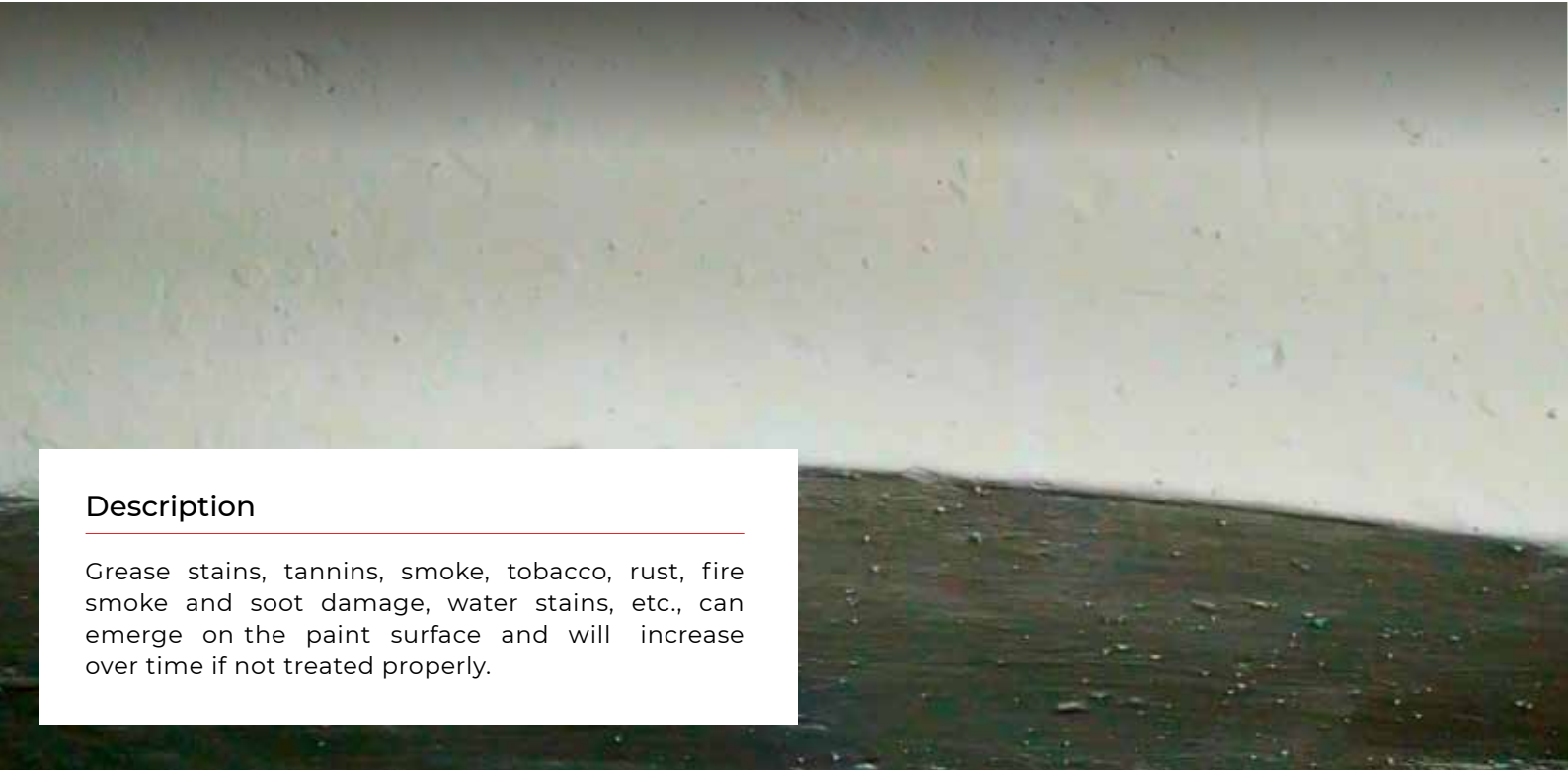
Dirt and environmental contamination are deposited on vertical and horizontal surfaces, causing adhesion problems, dirt stains, etc. and isn't the best look.

Substrate	Treatment	Primer	Topcoat
Brick Cement Mortar	Pressure wash with house wash/ detergent and let dry. If surface has not been previously painted, it must be primed to guarantee the quality of the final finish, and topcoat with a high quality paint.	**Interior:** Hidrocril **Exterior:** Primerlite	**Interior:** B-10, Junoprof or B-7 Ecológica **Exterior:** Novokril, Junokril or Bikril
Concrete floors		**Interior:** Imprimax primer or Dynapok Agua primer **Exterior:** Imprimax primer	**Interior:** Pavimyc, Dynamol or Dynapok Agua WB Floor Epoxy **Exterior:** Junoretano or Dynamol (self-priming)

Suggested paint systems. Not excluding alternative solutions.

PATHOLOGY

Staining (Interior)



Description

Grease stains, tannins, smoke, tobacco, rust, fire smoke and soot damage, water stains, etc., can emerge on the paint surface and will increase over time if not treated properly.

Substrate	Treatment	Primer	Topcoat
Cement, plaster	After cleaning the surface, seal with a paint/stain block creating a barrier to prevent stains from reappearing.	**Interior:** Tapamanchas Odourless Stain-Block , Junostop or Aquatapa	**Interior:** Junoprof, B-7 Ecologica or N-5

Suggested paint systems. Not excluding alternative solutions.

PATHOLOGY

Flashing

Description

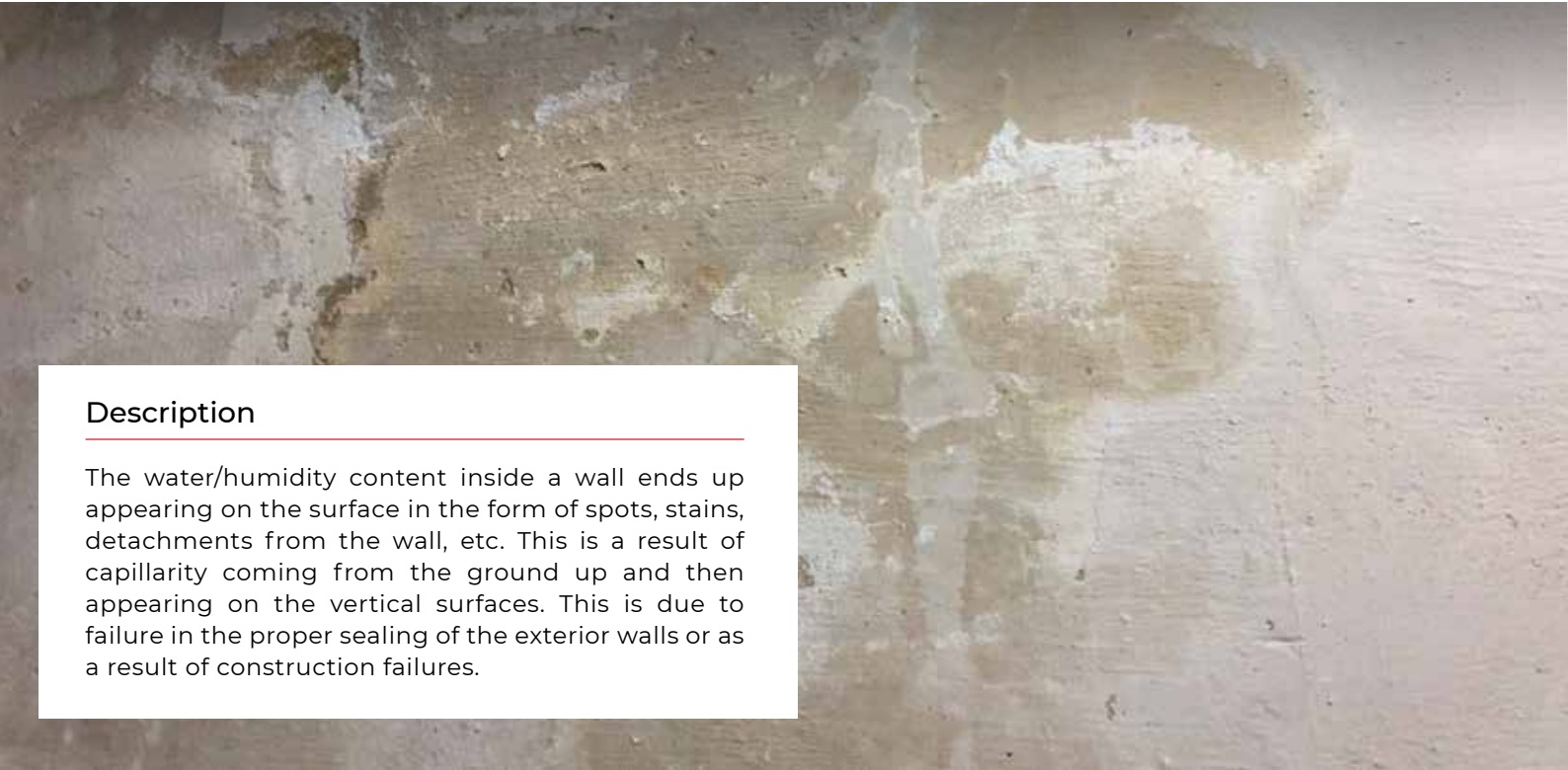
The occurrence of areas of apparent roughness or uneven sheen in a matt or mid-sheen paint finish, especially when the surface is viewed at a low or glancing angle. it is often along the ‘laps’ of joints between adjacent sections of the work and a common cause is failure to join up before the‘wet edge’has set. Variations in the porosity of the surface may also be responsible for sheariness/flashing. Plaster, especially projected plaster, usually present problems of absorption differences on different surface areas, leaving the paint with inconsistent absorption and uneven surface paint finish.

Substrate	Treatment	Primer	Topcoat
Plaster	Apply a coat of sealer to conceive a uniform absorption on the whole surface area, and finish with two coats of high quality paint.	**Interior:** Aquasell	**Interior:** Junoprof, B-12 or J-28 (Matt finish recommended)

Suggested paint systems. Not excluding alternative solutions.

PATHOLOGY

Humidity



Description

The water/humidity content inside a wall ends up appearing on the surface in the form of spots, stains, detachments from the wall, etc. This is a result of capillarity coming from the ground up and then appearing on the vertical surfaces. This is due to failure in the proper sealing of the exterior walls or as a result of construction failures.

Substrate	Treatment	Primer	Topcoat
Brick, cement, plaster	It is essential to eliminate the source of the water entering into the structure, before performing any painting work. Otherwise the problem will quickly reoccur. Prime and paint with appropriate products for each substrate type.	**Interior/Exterior:** Primerlite	**Interior/Exterior:** Novokril, Junokril, Junorev or Silicato (in case of not being able to completely remove moisture)
Wood		**Interior/Exterior:** Natursell or Hangers sealer	**Interior/Exterior:** Aqualac, Junoretano, Lasur acuoso* or Yacht Varnish* *No primer needed

Suggested paint systems. Not excluding alternative solutions.

PATHOLOGY

Humidity on horizontal surfaces

Description

On horizontal surfaces such as flat roofs or balconies, filtration of dampness and impermeability defects frequently occur, leading to stains, cracks and efflorescence appearing on lower levels and underneath these surfaces. It is important to prevent water from entering the concrete reinforcement structures so as to avoid premature degradation.

Substrate	Treatment	Primer	Topcoat
Roof, terraces or balconies	Clean the exterior side of the exposed surface area and make sure that the humidity of the substrte is not excessive. Apply a pliolite primer and finish with an elastomeric waterproof paint. In the lower areas, apply a very breathable paint.	**Interior/Exterior:** Primerlite* *On cement substrates	**Impermeabilizar:** Elastiflex Plus or Junoteras
Ground floors /lower areas			**Interior/Exterior:** JUNO-Rev or Silicato

Suggested paint systems. Not excluding alternative solutions.

PATHOLOGY

Capillarity

Description

Rising damp from the ground pushes through the pores of the substrate until it finds an escape route, sometimes reaching a height of more than one meter. In this process, finishes are degraded and crystallizing salts are dragged out and onto the surface giving rise to efflorescence.

Substrate	Treatment	Primer	Topcoat
Brick, cement, plaster	After applying a suitable treatment, neutralize the efflorescence (see page 10) and apply a highly breathable paint system	**Interior/Exterior:** Mineral primer or Primerlite	**Interior/Exterior:** Silicato (with Mineral primer), JUNO-Rev or Junolite (with Primerlite)

Suggested paint systems. Not excluding alternative solutions.

PATHOLOGY

Grease & Rubber

Description

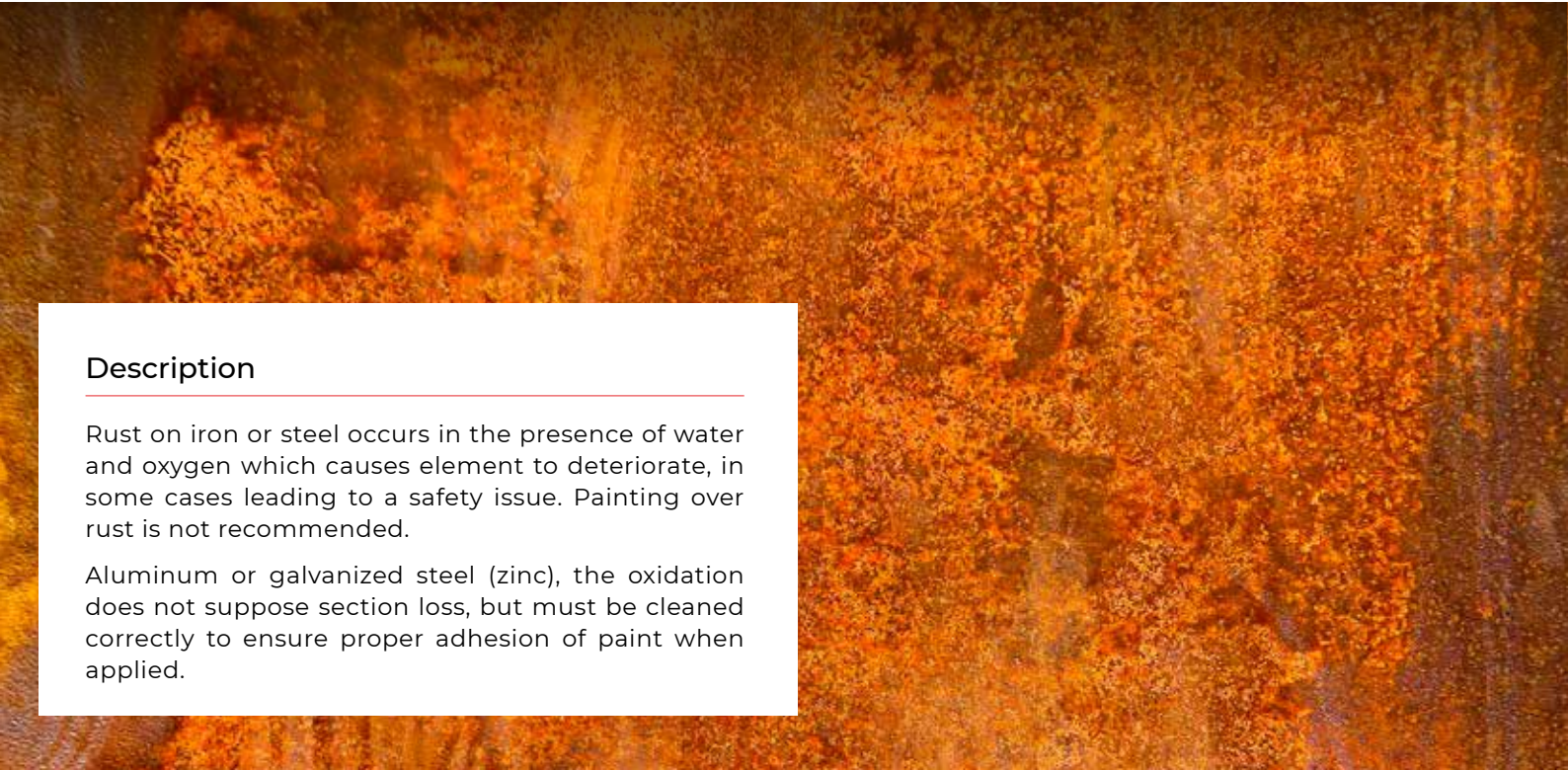
Grease or rubber stains (from tires) usually appear in workshops and other areas with vehicle or machinery traffic. Such stains prevent the correct adhesion of paint onto surfaces.

Substrate	Treatment	Primer	Topcoat
Concrete	Stains must be completely removed with solvents or detergents before painting, followed by a good rinse with clean water. If stains remain, sandblasting, or mill the surface if the substrate allows for it.	**Interior/Exterior:** Primerlite	**Interior/Exterior:** Novokril, Junokril or Bikril
Concrete Floors		**Interior:** Imprimax primer or Dynapok Agua WB Floor Epoxy **Exterior:** Imprimax primer	**Interior:** Pavimyc, Dynamol or Dynapok Agua WB Floor Epoxy **Exterior:** Junoretano or Dynamol (Primer not required)
Asphalt	Stains must be completely removed with detergents before painting, followed by a good rinse with clean water. If necessary grind the floor and resurface. Apply solvent-free paints, as solvent based products will attack the asphalt.	**Interior/Exterior:** Dynapok Agua WB Floor Epoxy	**Interior:** Dynapok Agua WB Floor Epoxy **Exterior:** Junosol (Primer not required)

Suggested paint systems. Not excluding alternative solutions.

PATHOLOGY

Oxide/rust



Description

Rust on iron or steel occurs in the presence of water and oxygen which causes element to deteriorate, in some cases leading to a safety issue. Painting over rust is not recommended.

Aluminum or galvanized steel (zinc), the oxidation does not suppose section loss, but must be cleaned correctly to ensure proper adhesion of paint when applied.

Substrate	Treatment	Primer	Topcoat
Iron, Steel	Rust must be removed by sandblasting, shot blasting, or chemically. A high quality anti-corrosion primer and an epoxy or polyurethane enamel should be applied to prevent corrosion.	**Interior/Exterior:** Multisupport primer or Dynapok 2/C Primer	**Interior/Exterior:** Junolac Anti-oxidant (with Multisupport primer), or Junoretano (with Dynapok 2/C Primer)
Aluminum Galvanized Steel	When exposed to the elements hot dip galvanized surfaces may show zinc corrosion and dirt. Wash surfaces with fresh water and detergents and use a scouring pad to remove dirt and surface corrosion. Rinse, allow to dry out completely before applying an anticorrosive primer. Finish with two coats of epoxy or polyurethane topcoats.	**Interior/Exterior:** Multisupport primer or Dynapok 2/C Primer	

Suggested paint systems. Not excluding alternative solutions.

PATHOLOGY

Mill scale

Description

Mill scale is often present on raw steel and is frequently mistaken for a blue-coloured primer.

Mill scale is a type of iron oxide that is formed on the surface of the steel during the hot-rolling process. Although at first it acts as a protection for the steel, it soon begins to lose properties and eventually comes off.

Substrate	Treatment	Primer	Topcoat
Hot rolled steel	Painting over mill scale is a futile exercise, as the presence of mill scale on the steel surface accelerates the corrosion of the underlying steel. All mill scale must always be removed to present a uniform and clean surface. Remove by power tool cleaning methods such as sandblasting, shot blasting or chemical stripping. A high quality primer and an epoxy or polyurethane finish should be applied to prevent corrosion.	**Interior/Exterior:** Multisupport primer or Dynapok 2/C Primer	**Interior/Exterior:** Junolac Anti-oxidant (with Multisupport primer) or Junoretano 2/C polyurethane (with Dynapok 2/C primer)

Suggested paint systems. Not excluding alternative solutions.

GLOSSARY

Product	Code	System
Akril-80	42.115	
Anti-condensation	62.650	
Aqualac	10.500	
B-10	72.000	
B-12	72.010	
B-5	73.001	
B-7 Ecológica	72.195	
Yacht Varnish	42.036	
Bikril	60.300	
Coverfix	62.875	
Dynamol	09.500	
Dynapok Agua WB Floor Epoxy	07.132	
Elastiflex	62.601	
Elastiflex plus	62.767	
Hidrocril	81.006	
Dynapok 2/C Primer	22.722	
Dynapok Agua Floor Primer	07.160	
Imprimax Primer	48.725	
Multisupport Primer	27.040	
Waterprim Primer	30.006	
J-28	73.168	
Junoclean	760.180	–
Junokril	60.500	
Junolac anti-oxidant	04.880	
Junolite Façade	62.900	
Junoplus	16.200	

Water-Based  | Solvent-based 

Product	Code	System
Junoprof	88.750	
Junoretano	88.880	
JUNO-Rev	65.500	
Junosol	06.162	
Junoteras Waterproofing	62.641	
Lasur Woodstain	82.451	
Metalex	27.000	
Misky-Misky	79.597	–
N-5	73.040	
Novokril	62.195	
Pavimyc	07.807	
Plaster JUNO	77.000	–
PlasteRAP JUNO	73.301	–
Primario mineral	75.302	
Primerlite	21.702	
JUNO paint stripper	83.100	
Siloxano Sealer	68.104	
Hangers U/C	21.000	
Aquasell Sealer	21.203	
Aquatapa Sealer	21.205	
Natursell U/C	21.100	
Silicato	75.362	
Super JUNO-Rev	65.101	
Junostop stain-block	21.300	
Tapamanchas stain block	21.350	

Water-Based  | Solvent-based 

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