

Application Guide



Jotafloor Rapid Dry

Product description

This is a one component oxidatively curing alkyd coating. It is fast drying and easy to apply. This product is tintable in a wide range of colours in Jotun's Multicolor Industry (MCI) system. It has good colour retention. If slip resistance is required Jotafloor Non Slip can be used in the system. To be used as primer and finish coat in atmospheric environments for properly prepared concrete substrates.

Scope

The Application Guide offers product details and recommended practices for the use of this product.

The Application Guide (AG) must be read in conjunction with the relevant specification, Technical Data Sheet (TDS) and Safety Data Sheet (SDS) for all the products used as part of the coating system.

Referred standards

Reference is generally made to ISO Standards. When using standards from other regions it is recommended to reference only one corresponding standard for the substrate being treated.

Application

Acceptable environmental conditions - before and during application

Before application, test the atmospheric conditions in the vicinity of the substrate for the dew formation according to ISO 8502-4.

Standard grade

| | | |
|------------------------|---------|----|
| Air temperature | 5 - 40 | °C |
| Substrate temperature | 5 - 40 | °C |
| Relative Humidity (RH) | 10 - 85 | % |

The following restrictions must be observed:

- Only apply the coating when the substrate temperature is at least 3°C above the dew point
- Do not apply the coating if the substrate is wet or likely to become wet
- Do not apply the coating if the weather is clearly deteriorating or unfavourable for application or curing
- Do not apply the coating in high wind conditions

Product mixing

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Product mixing ratio (by volume)

Single pack

Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 7

Application data

Airless Spray Equipment

| | |
|--------------------------------|------------------|
| Pump ratio (minimum) : | 32:1 |
| Pump output (litres/minute) : | 0.9-1.5 |
| Pressure at nozzle (minimum) : | 150 bar/2100 psi |
| Nozzle tip (inch/1000) : | 15-19 |
| Filters (mesh) : | 70-100 |

Material hose length :

Several factors influence, and need to be observed to maintain the recommended pressure at nozzle. Among factors causing pressure drop are:

- long paint- and whip hoses
- low inner diameter hoses
- high paint viscosity
- large spray nozzle size
- inadequate air capacity from compressor
- wrong or clogged filters

Recommended film thickness per coat

| Film thickness and spreading rate | Dry film thickness | Wet film thickness | Theoretical spreading rate |
|-----------------------------------|--------------------|--------------------|----------------------------|
| | (μm) | | (m^2/l) |
| Minimum | 25 | 50 | 20 |
| Maximum | 50 | 100 | 10 |
| Typical | 35 | 70 | 14,3 |

Ventilation

Sufficient ventilation is very important to ensure proper drying/curing of the film.

Coating loss

The consumption of paint should be controlled carefully, with thorough planning and a practical approach to reducing loss. Application of liquid coatings will result in some material loss. Understanding the ways that coating can be lost during the application process, and making appropriate changes, can help reducing material loss.

Some of the factors that can influence the loss of coating material are:

- type of spray gun/unit used
- air pressure used for airless pump or for atomization
- orifice size of the spray tip or nozzle
- fan width of the spray tip or nozzle

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- the amount of thinner added
- the distance between spray gun and substrate
- the profile or surface roughness of the substrate. Higher profiles will lead to a higher "dead volume"
- the shape of the substrate target
- environmental conditions such as wind and air temperature

Drying and Curing time

| Substrate temperature | 5 °C | 10 °C | 23 °C | 40 °C |
|-----------------------------|--------|--------|--------|--------|
| Surface (touch) dry | 60 min | 30 min | 20 min | 15 min |
| Walk-on-dry | 4 h | 1 h | 1 h | 1 h |
| Dried to over coat, minimum | 3 h | 2.5 h | 2 h | 1 h |

Drying and curing times are determined under controlled temperatures and relative humidity below 85%, and within the DFT range of the product.

Surface (touch) dry: The state of drying when slight pressure with a finger does not leave an imprint or reveal tackiness. Dry sand sprinkled on the surface can be brushed off without sticking to or causing damage to the surface.

Walk-on-dry: Minimum time before the coating can tolerate normal foot traffic without permanent marks, imprints or other physical damage.

Dried to over coat, minimum: The shortest time allowed before the next coat can be applied.

Maximum over coating intervals for atmospheric exposure

| Substrate temperature | 5 °C | 10 °C | 23 °C | 40 °C |
|-----------------------|----------|----------|----------|----------|
| Itself | extended | extended | extended | extended |

Other conditions that can affect drying / curing / over coating

Adding anti-skid to the coating system

Anti skid should only be added in the final coat and not used in a single coat system direct to the surface. Spread the Jotafloor Non-slip Aggregate on the surface before half of time to Surface dry. The recommended usage is 2.5 - 3.3 kg per 10 litres of paint.

Repair of coating system

Damages to the coating layers:

Prepare the area through sandpapering or grinding, followed by thorough washing. When the surface is dry the coating may be over coated by itself or by another product, ref. original specification.

Always observe the maximum over coating intervals. If the maximum over coating interval is exceeded the surface should be carefully roughened in order to ensure good intercoat adhesion. Damages exposing bare substrate:

Remove all rust, loose paint, grease or other contaminants by spot abrasive blasting, mechanical grinding, water and/or solvent washing. Feather edges and roughen the overlap zone of surrounding intact coating. Apply the coating system specified for repair.

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Quality assurance

The following information is the minimum recommended. The specification may have additional requirements.

- Confirm all welding and other metal work, whether internal or external to the tank, has been completed before commencing pre-treatment and surface preparation of the substrate
- Confirm installed ventilation is balanced and has the capacity to deliver and maintain the RAQ
- Confirm the required surface preparation standard has been achieved and is held prior to coating application
- Confirm that the climatic conditions are within recommendation in the AG and held during the application
- Confirm the required number of stripe coats have been applied
- Confirm each coat meets the DFT requirements of the specification
- Confirm the coating has not been adversely affected by rain or any other agency during curing
- Observe adequate coverage has been achieved on corners, crevices, edges and surfaces where the spray gun cannot be positioned so that its spray impinges on the surface at 90°
- Observe the coating is free from defects, discontinuities, insects, spent abrasive media and other contamination
- Observe the coating is free from misses, sags, runs, wrinkles, fat edges, mud blistering, blistering, obvious pinholes, excessive dry spray, heavy brush marks and excessive film build
- Observe the uniformity and colour are satisfactory

All noted defects should be fully repaired to conform to the coating specification.

Caution

This product is for professional use only. The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the coatings correctly and according to Jotun's technical documentation. Applicators and operators shall use appropriate personal protection equipment when using this product. This guideline is given based on the current knowledge of the product. Any suggested deviation to suit the site conditions shall be forwarded to the responsible Jotun representative for approval before commencing the work.

For further advice please contact your local Jotun office.

Health and safety

Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not inhale spray mist. Avoid skin contact. Spillage on the skin should immediately be removed with suitable cleanser, soap and water. Eyes should be well flushed with water and medical attention sought immediately.

Accuracy of information

Always refer to and use the current (last issued) version of the TDS, SDS and if available, the AG for this product. Always refer to and use the current (last issued) version of all International and Local Authority Standards referred to in the TDS, AG & SDS for this product.

Colour variation

Some coatings used as the final coat may fade and chalk in time when exposed to sunlight and weathering effects. Coatings designed for high temperature service can undergo colour changes without affecting performance. Some slight colour variation can occur from batch to batch. When long term colour and gloss retention is required, please seek advice from your local Jotun office for assistance in selection of the most suitable top coat for the exposure conditions and durability requirements.

Reference to related documents

The Application Guide (AG) must be read in conjunction with the relevant specification, Technical Data Sheet (TDS) and Safety Data Sheet (SDS) for all the products used as part of the coating system.

When applicable, refer to the separate application procedure for Jotun products that are approved to classification societies such as PSPC, IMO etc.

Symbols and abbreviations

min = minutes
h = hours

TDS = Technical Data Sheet
AG = Application Guide

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d = days
 °C = degree Celsius
 ° = unit of angle
 µm = microns = micrometres
 g/l = grams per litre
 g/kg = grams per kilogram
 m²/l = square metres per litre
 mg/m² = milligrams per square metre
 psi = unit of pressure, pounds/inch²
 Bar = unit of pressure
 RH = Relative humidity (% RH)
 UV = Ultraviolet
 DFT = dry film thickness
 WFT = wet film thickness

SDS = Safety Data Sheet
 VOC = Volatile Organic Compound
 MCI = Jotun Multi Colour Industry (tinted colour)
 RAQ = Required air quantity
 PPE = Personal Protective Equipment
 EU = European Union
 UK = United Kingdom
 EPA = Environmental Protection Agency
 ISO = International Standards Organisation
 ASTM = American Society of Testing and Materials
 AS/NZS = Australian/New Zealand Standards
 NACE = National Association of Corrosion Engineers
 SSPC = The Society for Protective Coatings
 PSPC = Performance Standard for Protective Coatings
 IMO = International Maritime Organization

Disclaimer

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.