

Application Guide



Jotafloor Topcoat

Product description

This is a two component amide cured epoxy coating. It is a high performance product. It is easy to apply. This product is tintable in a wide range of colours in Jotun's Multicolor Industry (MCI) system. It has good chemical, abrasion and impact resistance. If enhanced slip resistance is required Jotafloor Non Slip can be used in the system. To be used as topcoat in atmospheric environments. Suitable on approved primers on concrete substrates.

Scope

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

The data and information provided are not definite requirements. They are guidelines to assist with efficient and safe use, and optimum service of the product. Adherence to the guidelines does not relieve the applicator of responsibility for ensuring that the work meets specification requirements. Jotun's liability is in accordance with general product liability rules.

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 ASTM and SSPC Standards. When using standards from other regions it is recommended to reference only one corresponding standard for the substrate being treated.

Acceptable environmental conditions - before and during application

Application

All cementitious substrates should be at least 28 days old and have a moisture content not exceeding 4%.

The substrate should be mechanically abraded to leave a clean, sound, stable base onto which the Jotafloor System can be applied. The preferred method of abrading the substrate is dust free captive blasting. Mechanical grinding or scabbling may also be used if captive blasting is deemed impractical.

Prior to the application of any primer, the prepared substrate should be thoroughly cleaned to remove any remaining traces of dust or other loose material.

Choice of Primers

All substrates are different, they can be unstable, friable, porous, dense or contain surface hardeners. Depending on the substrate conditions a suitable Jotafloor primer should be used.

Using a slow speed drill mix the two components of the chosen Jotafloor primer together for a minimum of 3 minutes until becomes homogenous.

Apply the appropriate Jotafloor primer to the prepared substrate using a roller or brush at the specified rate, ensuring that the surface is fully covered and that no ponding of the material occurs. Allow it to dry overnight.

Topcoat/Midcoat

Prior to the application of the product, primed surface should be thoroughly cleaned to remove any remaining traces of dust or other loose material.

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Using a slow speed drill (300-400 RPM) mix the two components of the product together for a minimum of 4 minutes until it becomes homogenous.

The applicator must ensure that there is sufficient supply of paint materials and labour, to carry out the continuous application in any given floor area.

Apply the first coat of the product on the Jotafloor Primer, using a roller, brush or airless spray at a rate of 100 microns, W.F.T. ensuring that the surface is fully covered and that no ponding of the material occurs. Allow it to dry.

Apply the second coat of the product, using a roller, brush or airless spray at a rate of 100 microns, W.F.T. ensuring that the surface is fully covered and that no ponding of the material occurs. Allow it to dry. The above thicknesses are for demonstration purpose only. All the thicknesses are determined by the specification of each individual product.

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

- Only apply the coating when the substrate temperature is at least 3 °C (5 °F) 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

Product mixing ratio (by volume)

Jotafloor Topcoat Comp A	4 part(s)
Jotafloor Topcoat Comp B	1 part(s)

No part mixing of this product.

Use a slow speed drill and mixing paddle. Pour the full contents of the mixed material onto the floor immediately after mixing is completed.

The temperature of base and curing agent is recommended to be 18 °C or higher when the paint is mixed.

Induction time and Pot life

Paint temperature	23 °C
Induction time	10 min
Pot life	2 h

Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 17

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Airless Spray Equipment

Pump ratio (minimum) :	42:1
Nozzle output (litres/minute) :	1.5-2.2
Pressure at nozzle (minimum) :	150 bar/2100 psi
Nozzle tip (inch/1000) :	17-23
Filters (mesh) :	70

Repair of coating system

Damages to the coating layers:

Prepare the area through sandpapering or grinding, followed by thorough cleaning/vacuuming. When the surface is clean and 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 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.

Film thickness per coat

Typical recommended specification range

Dry film thickness	40 - 60	µm
Wet film thickness	80 - 120	µm
Theoretical spreading rate	12.5 - 8.3	m ² /l

The actual spreading rate per coat may vary depending on the size of the Jotafloor Non Slip Aggregates used.

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
- the amount of thinner added

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- 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	10 °C	23 °C	40 °C
Surface (touch) dry	12 h	3 h	1 h
Walk-on-dry	23 h	8 h	3 h
Dry to over coat, minimum	23 h	7.5 h	3 h
Dried/cured for service	14 d	7 d	3 d

For maximum overcoating intervals, refer to the Application Guide (AG) for this product.

Surface (touch) dry: The state of drying when slight pressure with a finger does not leave an imprint or reveal tackiness.

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

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

Dry to over coat, maximum, atmospheric: The longest time allowed before the next coat can be applied.

Temperature below 23 degree C will make application more difficult and careful considerations should be given to storage of materials in cold conditions. Consult Jotun technical team for assistance in such cases.

Maximum over coating intervals

Maximum time before thorough surface preparation is required. The surface must be clean and dry and suitable for over coating. Inspect the surface for chalking and other contamination and if present, remove with an alkaline detergent. Agitate the surface to activate the cleaner and before it dries, wash the treated area by low-pressure water cleaning using fresh water.

If maximum over coating interval is exceeded the surface should in addition be carefully roughened to ensure good inter coat adhesion.

Areas for atmospheric exposure

Average temperature during drying/curing	23 °C	40 °C
Itself	2 d	1 d
polyurethane	2 d	1 d

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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.

Quality assurance

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

- Confirm that all welding and other metal work has been completed before commencing pre-treatment and surface preparation
- Confirm that installed ventilation is balanced and has the capacity to deliver and maintain the RAQ
- Confirm that the required surface preparation standard has been achieved and is held prior to coating application
- Confirm that the climatic conditions are within recommendations in the AG, and are held during the application
- Confirm that the required number of stripe coats have been applied
- Confirm that each coat meets the DFT requirements in the specification
- Confirm that the coating has not been adversely affected by rain or other factors during curing
- Observe that 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° angle
- Observe that the coating is free from defects, discontinuities, insects, abrasive media and other contamination
- Observe that the coating is free from misses, sags, runs, wrinkles, fat edges, mud cracking, blistering, obvious pinholes, excessive dry spray, heavy brush marks and excessive film build
- Observe that the uniformity and colour are satisfactory

All noted defects shall 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

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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, SSPC etc.

Symbols and abbreviations

min = minutes

h = hours

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

TDS = Technical Data Sheet

AG = Application Guide

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.