

Jotafloor EPC 300 Plus

Product description

This is a two component amine cured high volume solid, low VOC epoxy coating. It is a self smoothing, easy to apply product, leaving a seamless surface. With Jotafloor Non Slip aggregates enhanced slip resistance is possible. To be used as finish coat in atmospheric environments.

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. Jotuns 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.

Surface preparation

The required quality of surface preparation can vary depending on the area of use, expected durability and if applicable, project specification.

Preferred surface profile for Jotafloor EPC 300 Plus when applied with or without primer is CSP2-CSP5 as per the ICRI guideline mentioned in 310.2R.2013.

The substrate should be mechanically abraded to leave a clean, sound, stable base on to which Jotafloor system can be applied.

Preferred method of abrading the substrate is dust free captive blasting or mechanical diamond disc grinding. Both the equipment should be connected to an industrial vacuum machine for a dust free environment. Whichever surface preparation method is employed, ensure that the laitance (powdery material on the concrete surface) and loose particles are removed from the concrete surface.

After the surface preparation is completed, remove all the dust formed on the surface using an industrial vacuum machine. Vacuum cleaning is also recommended before the start of each of the coat.

Once surface preparation is completed it is necessary to use the following material for concrete repairs

Jotafloor Filler – Blow holes/Cracks up to 3 mm depth

Jotafloor Filler Plus – Blow holes / cracks from 3 mm to 10 mm depth

Slurry of Jotafloor SF PR 150 and Non -slip aggregate medium – Blow holes/cracks more than 10 mm depth.

For every 1 litre of JF SF PR 150 it is required to add 6-7 kgs of non - slip aggregate medium and then mix. The mixed quantity would be in solid form and should be applied on to the wet primer for adhesion. It is important to consult the Jotun Technical team for any repair above 10 mm deep.

Coating should not be relied upon to improve the tolerance's or flatness levels in the substrate. The substrate should be prepared to the appropriate tolerance prior to the application of coating. Tolerance's can be corrected, moreover this is a separate operation which must be completed before installing the coating. Coating will

generally follow the contours of the substrate and have the same tolerance's as the substrate to which it is applied. Applicators are advised to check the tolerances of the substrate before they begin with the preparation.

Coated Surfaces

For old concrete, Jotun technical team should visit the site and appropriate surface preparation methodology should be recommended and that is to be followed.

Application

Acceptable environmental conditions - before and during application

All cementitious substrate should be at least 28 days old and before the application, test the atmospheric conditions in the vicinity of the substrate for the dew formation according to ISO 8502-4.

The moisture content should not exceed 5%.

The Relative Humidity should not exceed 80%.

Ambient temperature should be between 15°C and 40°C.

Substrate temperature should be at least 3°C above the dew point.

The PH of the concrete should be 7-9.

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 unfavorable for application or curing
- Do not apply the coating in high wind conditions

Product mixing

Product mixing ratio (by volume)

Jotafloor EPC 300 Plus Comp A	4 part(s)
Jotafloor EPC 300 Plus Comp B	1 part(s)

No part mixing of this product.

Use a slow speed drill and mixing paddle.

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

Component A should be thoroughly stirred before component B is mixed. Mix both the components using a slow speed drill and mixing paddle for 2 minutes. The entire content should be poured on to a third container and edges of the container should be scraped. Mix the material for an additional 20 seconds. The mixed material should be given an induction time of 3 minutes before application. Do not add solvent thinners at any time.

Induction time and Pot life

Paint temperature

23 °C

Induction time

3 min,
Recommended.

Pot life

25 min

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

Thinner/Cleaning solvent

Cleaning solvent : Jotun Thinner No. 17

Thinning of the product is not recommended.

Application data

Roller application

After the application of Jotafloor Sealer HS/ Jotafloor SF PR 150, when cured if needed apply a scrape coat of Jotafloor EPC 300 Plus to fill all imperfections, and to some degree level out the smaller valleys and to further improve on the sealer effect to avoid bubbles.

Apply first layer of Jotafloor EPC 300 Plus using a roller at 3.20 sqm/litre to achieve a desired thickness of 300 microns. To achieve a desired thickness of 200 microns apply it at 4.9 sqm/litre. Broadcast Jotafloor non-slip aggregate medium at the rate of 0.7 – 1 kgs/sqm on wet coating to achieve a non-slip finish. Leave it to dry for at least 24 hours at 23°C.

Once dried apply second layer of Jotafloor EPC 300 Plus using a roller at 3.20 sqm/litre to achieve a desired thickness of 300 microns. To achieve a desired thickness of 200 microns apply it at 4.9 sqm/litre.

Squeegee Application

After the application of Jotafloor Sealer HS/ Jotafloor SF PR 150, when cured if needed apply a scrape coat of Jotafloor EPC 300 Plus to fill all imperfections, and to some degree level out the smaller valleys and to further improve on the sealer effect to avoid bubbles.

For thickness of 500 microns, apply Jotafloor EPC 300 Plus using a squeegee at 1.95 sqm/litre. Apply the Jotafloor EPC 300 Plus in a systematic way by concentrating on square by square. Make two or three parallel stripes, then spread that paint all over the selected square. Always do cross rolling to give a uniform finish. Broadcast Jotafloor non-slip aggregate medium at the rate of 1-1.5 kgs/sqm on wet coating to achieve a non-slip finish. Leave it to dry for at least 24 hours at 23°C. Once dried apply second layer of Jotafloor EPC 300 Plus using a squeegee at 1.95 sqm/litre to achieve a desired thickness of 500 microns. Make two or three parallel stripes, then spread that paint all over the selected square. Always do cross rolling to give a uniform finish.

Application directly on concrete

For the direct application of Jotafloor EPC 300 Plus on to the concrete, firstly a thorough inspection of the concrete should be carried out. All the repairs and imperfections should be carried out using Jotafloor Filler/ Jotafloor Filler Plus. For porous concrete a scrape coat of Jotafloor Filler or one or two coats of Jotafloor Sealer/ Jotafloor Sealer HS is recommended before the application of Jotafloor EPC 300 Plus. Apply first coat of Jotafloor EPC 300 Plus using a roller/squeegee at 3.20 sqm/litre to achieve a desired thickness of 300 microns. Broadcast Jotafloor non-slip aggregate medium at the rate of 0.7 – 1 kgs/sqm on wet coating to achieve a Non slip finish. Leave it to dry for at least 24 hours at 23°C.

Once dried apply the second layer of Jotafloor EPC 300 Plus using a roller at 3.20 sqm/litre to achieve a desired thickness of 300 microns. To achieve a desired thickness of 200 microns apply it at 4.9 sqm/litre.

Aggregates Broadcasting

For enhanced slip resistance, broadcast the aggregates at the rate of 0.5-1kg per square meter. Make sure that broadcasting is uniform & is not dumped at a particular area. After drying of the coating remove the free aggregates by sweeping. 2nd coat of Jotafloor EPC 300 Plus then can be applied.

Ventilation

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

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 dry the coating may be over coated by an additional coat or by another product, ref. original specification.

Always observe the maximum over coating intervals. If the maximum over coating interval has been exceeded the surface should be carefully roughened in order to ensure good intercoat adhesion.

Damages exposing bare Substrate:

Remove rust, loose paint, grease or other contaminants by captive 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	200 - 500 µm
Wet film thickness	200 - 500 µm
Theoretical spreading rate	4.9 - 1.96 m ² /l

Drying and Curing time

Substrate temperature	15 °C	23 °C	40 °C
Surface (touch) dry	48 h	16 h	5.5 h
Walk-on-dry	48 h	18 h	6.5 h
Dry to over coat, minimum	48 h	24 h	8 h
Dry to over coat, maximum, atmospheric	72 h	48 h	24 h
Dried/cured for service	14 d	7 d	3 d

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.

Dried/cured for service: Minimum time before the coating can be permanently exposed to the intended environment/medium.

Curing at lower temperature than recommended i.e. 15°C would result into blushing & blooming problem. Exposure to water during curing process will result into adverse effect to the coating.

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
Epoxy	2 d	1 d

Quality assurance

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

- 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

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.

Application Guide

Jotafloor EPC 300 Plus



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

This Application Guide supersedes those previously issued.

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For your nearest local Jotun office, please visit our website at www.jotun.com.