Jotafloor PU Topcoat HS

Product description

This is a two component high volume solid, LEED compliant and low VOC, isocyanate cured polyurethane coating. It is a high performance, non yellowing product. It has excellent gloss and colour retention. It has good chemical, abrasion and impact resistance. If enhanced slip resistance is required Jotafloor Non Slip can be used in the system. 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.
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.

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%.

Minimum and maximum temperature should be 23°C and 40°C respectively.

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

This Application Guide supersedes those previously issued.
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.
For your nearest local Jotun office, please visit our website at www.jotun.com.

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 JF Pu top coat HS is CSP2-CSP3 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 diamond disc grinding or dust free light captive blasting. 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.
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.

Product mixing

Product mixing ratio (by volume)

Jotafloor PU Topcoat HS Comp A	7.5 part(s)
Jotafloor PU Topcoat HS Comp B	2.5 part(s)

No part mixing of this product.
Use a slow speed drill and mixing paddle.

Part mixing of these components is not acceptable and will affect both performance and appearance of the finished floor.

Mixing should be carried out using a heavy duty, slow-speed drill with appropriate mixing paddle attachment. The individual components should be thoroughly stirred to disperse any settlement, then the Comp A and Comp B packs should be mixed together. The entire contents of the hardener (B) container should be added to the base (A) and mixed together for two minutes until a homogeneous mix is obtained. When a homogenous state has been achieved split the mixed paint in to two separate containers and continue mixing both portions of the mix for a further 2 minutes.

This Application Guide supersedes those previously issued.
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.
For your nearest local Jotun office, please visit our website at www.jotun.com.

Induction time and Pot life

Paint temperature	23 °C
Pot life	30 minutes

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

Thinner/Cleaning solvent

Cleaning solvent: Jotun Thinner No. 10

Application data

Roller application

For smooth finish after the application of Jotafloor Sealer HS apply Jotafloor PU Topcoat HS using a roller at 13 sqm/litre to achieve a desired thickness of 70microns and at 11 sqm/litre for 80 microns. The mentioned coverage is theoretical and the practical coverage on site will depend upon the surface profile.

For rough finish after the application of Jotafloor SFPR 150 apply Jotafloor PU topcoat HS using a roller at 8 sqm/ litre. For increased roughness and textured finish broadcast non -slip aggregates medium over Jotafloor SF PR 150 / Jotafloor Glass Flake HS/ Jotafloor EPC 300/ Jotafloor Top Coat E and terminate the system with two coats of Jotafloor PU top coat HS. The first coat should be applied at 5 sqm/litre. After drying apply the second coat within the maximum recoating interval at 6 sqm/litre.

Never terminate Jotafloor PU topcoat HS with a single coat directly on Non -slip aggregate.

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 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	72	-	108	µm
Wet film thickness	80	-	120	µm
Theoretical spreading rate	11.2	-	7.5	m²/l

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

This Application Guide supersedes those previously issued.
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.
For your nearest local Jotun office, please visit our website at www.jotun.com.

Drying and Curing time

Substrate temperature	23 °C
Surface (touch) dry	10 h
Walk-on-dry	12 h
Dry to over coat, minimum	12 h
Dried/cured for service	7 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.

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

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 jetting to Wa 1 (ISO 8501-4) 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

Equipment List

- Mixing paddle, MR3 type or equivalent
- Slow speed drill
- Paint rollers
- Cleaning cloth
- Medium-sized flat bladed screwdriver (for opening tins)
- Jotun Thinner 17 for cleaning
- Soft bristled sweeping brush or broom

This Application Guide supersedes those previously issued.
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.
For your nearest local Jotun office, please visit our website at www.jotun.com.

- Heavy duty wire brush
- Diamond disc grinding machine
- Captive Blasting machine
- Industrial vacuum cleaner

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.

This Application Guide supersedes those previously issued.
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.
For your nearest local Jotun office, please visit our website at www.jotun.com.

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.

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