

Penguard Low Temp Additive

Product description

This is an additive for improved low temperature curing of the following products:

Penguard HB
Penguard Primer
Penguard Special

Add 2 % (0.4 litre) to a 20 litre mixed.

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.

Product mixing

Product mixing ratio (by volume)

Single pack

Drying and Curing time

Substrate temperature	2 °C	5 °C	10 °C	23 °C
Penguard Primer				
Surface (touch) dry	10 h	5 h	2 h	1 h
Walk-on-dry	24 h	16 h	8 h	4 h
Dried to over coat, minimum	18 h	12 h	6 h	3 h
Dried/cured for service		16 d	8 d	4 d
Penguard HB/Penguard Special				
Surface (touch) dry	12 h	6 h	3 h	2 h
Walk-on-dry	30 h	20 h	10 h	5 h
Dried to over coat, minimum	30 h	20 h	10 h	5 h
Dried/cured for service		16 d	8 d	4 d

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

Application Guide

Penguard Low Temp Additive



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.

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

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.

Application Guide

Penguard Low Temp Additive



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	TDS = Technical Data Sheet
h = hours	AG = Application Guide
d = days	SDS = Safety Data Sheet
°C = degree Celsius	VOC = Volatile Organic Compound
° = unit of angle	MCI = Jotun Multi Colour Industry (tinted colour)
µm = microns = micrometres	RAQ = Required air quantity
g/l = grams per litre	PPE = Personal Protective Equipment
g/kg = grams per kilogram	EU = European Union
m ² /l = square metres per litre	UK = United Kingdom
mg/m ² = milligrams per square metre	EPA = Environmental Protection Agency
psi = unit of pressure, pounds/inch ²	ISO = International Standards Organisation
Bar = unit of pressure	ASTM = American Society of Testing and Materials
RH = Relative humidity (% RH)	AS/NZS = Australian/New Zealand Standards
UV = Ultraviolet	NACE = National Association of Corrosion Engineers
DFT = dry film thickness	SSPC = The Society for Protective Coatings
WFT = wet film thickness	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.