

# Jota Fulfill 100

# **Product description**

This is a two component unsaturated polyester filler designed for dents and surface irregularities in machinery or vehicle body parts. It is easy to mix with excellent application and sanding properties. It has excellent compatibility with epoxy primer and subsequent coating. Suitable for use on steel substrates exposed in atmospheric conditions.

## 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 ISO 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.

#### **Process sequence**

Surface preparation and coating should normally be commenced only after all welding, degreasing, removal of sharp edges, weld spatter and treatment of welds is complete. It is important that all hot work is completed before coating commences.

## Soluble salts removal

Soluble salts have a negative impact on the coating systems performance, especially when immersed. Jotun's general recommendations for maximum soluble salts (sampled and measured as per ISO 8502-6 and -9) content on a surface are: For areas exposed to (ISO 12944-2): C1-C4: 200 mg/m<sup>2</sup> C5: 100 mg/m<sup>2</sup>

## **Carbon steel**

#### **Initial rust grade**

The steel shall preferably be Rust Grade A or B (ISO 8501-1). It is technically possible to apply the coating to rust grades C and D, but it is practically challenging to ensure specified film thickness on such a rough surface, hence risk of reduced lifetime of the coating system. When steel of Rust Grade C or D is coated, the frequency of inspection and testing should be increased.

#### Initial inspection and pretreatment

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Inspect the surface for contaminations 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 (LPWC) to Wa 1 (ISO 8501-4) using fresh water.

Non-contaminated areas shall be washed down by Low-Pressure Water Cleaning (LPWC) to Wa 1 (ISO 8501-4) using fresh water to reduce the concentration of surface chlorides.

#### Metal finishing

For areas in corrosivity category C1 to C4 (ISO 12944-2) all irregularities, burrs, slivers, slag and spatter on welds, sharp edges and corners shall conform to minimum grade P2 (ISO 8501-3) Table 1, or as specified. For areas in corrosivity category C5 the requirement is conformance to grade P3 (ISO 8501-3) Table 1. All edges shall have a rounded radius of minimum 2 mm, or subjected to three pass grinding or at least equivalent process.

One may use a mechanical grinder fitted with a suitable abrasive disc. All sharp irregularities, burrs, slivers, slag and spatter on welds, whether apparent before or after blast cleaning, shall be removed before coating application. It is recommended that welding smoke is removed by water cleaning according to ISO 12944-4, section 6.2.1. Welding smoke residues are water soluble and could cause blistering if not removed by washing before blasting.

Defective welds shall be replaced and treated to an acceptable finish before painting. Temporary welds and brackets shall be ground to a flat finish after removal from the parent metal.

#### **Pitting repair**

In some areas it is practically feasible to use filler to fill pittings. This should then be done either after the initial surface preparation or after application of first coat.

### Abrasive blast cleaning

Application of protective coating shall commence before degradation of the required surface standard occurs.

#### Cleanliness

After pre-treatment is complete, the surface shall be dry abrasive blast cleaned to Sa  $2\frac{1}{2}$  (ISO 8501-1) using abrasive media suitable to achieve a sharp and angular surface profile.

#### Abrasive media quality

The selected abrasive must be compatible with both the surface to be blast cleaned and the specified coating system. The abrasive shall meet specifications as per relevant parts of ISO 11124 (Specification for metallic blast-cleaning abrasives), or ISO 11126 (Specification for non-metallic blast-cleaning abrasives). It should be sampled and tested as per relevant parts of ISO 11125 (metallic abrasives) or ISO 11127 (non-metallic abrasives). Dry storage of abrasive and shelter for blasting pots is necessary to prevent equipment becoming clogged with damp abrasive.

All abrasive blast media used should be new and not recirculated, with the exception of steel grit. If this is utilized the circulation process must include a cleaning process.

#### **Compressed air quality**

The supply of clean air to blasting pots must be secured to avoid contamination of abrasive and thereby of blast cleaned surfaces. Compressors must be fitted with sufficient traps for oil and water. It is also recommended to fit two water separators at the blasting machine to ensure a supply of moisture-free air to the abrasive chamber.

## **Coated surfaces**

#### Over coating

This product can be applied on top of Jotun epoxy primer, provided the primer is fully cured, clean, dust free, dry and undamaged. When applied on coatings past maximum intercoating interval light abrading may be required to achieve proper intercoat adhesion.

Date of issue: 25 September 2023

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# **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.

Air temperature	5 - 50	°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 (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

At ambient temperature below 10 °C, it is recommended to pre-heat the material up to 25 °C prior to mixing.

## **Product mixing**

## Product mixing ratio (by weight)

Jota Fulfill 100 Comp A	100 part(s)
Jota Fulfill 100 Comp B	3 part(s)

#### **Product mixing**

Manual application

Mixing:

According to the correct mixing ratio, and stir/mix thoroughly with a power agitator until a uniform colour material is obtained before application.

#### **Induction time and Pot life**

Paint temperature	23 °C
Pot life	25 min

Reduced at higher temperatures, and with increased mixing volumes. It is recommend to use all material as soon as possible, after throughly mixing.

## **Thinner/Cleaning solvent**

Cleaning solvent: Jotun Thinner No. 7

Thinning of this product is normally not necessary and thus not recommended.

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### **Application data**

#### **Other application tools**

#### **Application with trowel**

Recommended. Trowel on to achieve the required thickness and smoothness.

## Film thickness per coat

#### Typical recommended specification range

Dry film thickness	200	-	2000	μm
Wet film thickness	200	-	2000	μm
Theoretical spreading rate	5	-	0.5	m²/l
Theoretical spreading rate	3	-	0.3	m²/kg

# **Drying and Curing time**

Substrate temperature	23 °C	
Dry to over coat, minimum	3 h	
Dried/cured for sanding	3 h	
Dried/cured for service	7 d	

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

Dried/cured for sanding: The state of drying when a coating film can be sanded without the sandpaper sticking or clogging.

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

## 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.

Sand the surface to ensure good inter coat adhesion before over coating.

#### Areas for atmospheric exposure

Date of issue: 25 September 2023

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Average temperature during drying/curing	23 °C	
Itself	12 h	
ероху	7 d	
polyurethane	7 d	

# **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**

When applicable, products primarily meant for use as primers or antifoulings may have slight colour variations from batch to batch. Such products and epoxy based products used as a finish coat may chalk when exposed to sunlight and weathering.

Colour and gloss retention on topcoats/finish coats may vary depending on type of colour, exposure environment such as temperature, UV intensity etc., application quality and generic type of paint. Contact your local Jotun office for further information.

#### **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.

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# 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 <sup>2</sup> /l = square metres per litre	UK = United Kingdom
mg/m <sup>2</sup> = milligrams per square metre	EPA = Environmental Protection Agency
psi = unit of pressure, pounds/inch <sup>2</sup>	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
	ASFP = Association for Specialist Fire Protection

# 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.

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