Technical Data
PENGUARD PRIMER

Product description
Penguard Primer is a two-pack epoxy primer based on a high molecular weight epoxy resin. This product is part of a complete system which is certified not to spread surface flames.

Recommended use
Anticorrosive primer in a complete Penguard system. Can be used on steel, galvanised steel or aluminium. May be overcoated with epoxy, chlorinated rubber, vinyl or polyurethane coatings. May be used in tanks for potable water.

Film thickness and spreading rate

	Minimum	Maximum	Typical
Film thickness, dry (µm)	40	60	50
Film thickness, wet (µm)	80	120	100
Theoretical spreading rate (m^2/l)	12.8	8.5	10.2

Physical properties

Colour	Red
Solids (vol %)*	51 ± 2
Flash point	25ºC ± 2 (Setaflash)
Gloss	Flat
Water resistance	Very good
Abrasion resistance	Very good
Solvent resistance	Excellent
Chemical resistance	Excellent
Flexibility	Good

***** Measured according to ISO 3233:1998 (E)

Surface preparation

All surfaces should be clean, dry and free from contamination. The surface should be assessed and treated in accordance with ISO 8504.

Bare steel
Cleanliness: Blast cleaning to Sa 2½ (ISO 8501-1:1988).Roughness: using abrasives suitable to achieve grade Fine to Medium G (30-85 µm, Ry5) (ISO 8503-2)

Other surfaces
The coating may be used on other substrates. Please contact your local Jotun office for more information.

Condition during application

The temperature of the substrate should be minimum 10°C and at least 3°C above the dew point of the air, temperature and relative humidity measured in the vicinity of the substrate. Good ventilation is usually required in confined areas to ensure proper drying. The coating should not be exposed to oil, chemicals or mechanical stress until cured. If necessary, Penguard Stayer, Penguard Primer, Penguard HB, Penguard Special may be used down to 2ºC, provided a special accelerator is added.

Application methods

Spray	Airless spray
Brush	Recommended for stripe coating and small areas, care must be taken to achieve the specified dry film thickness.

Application data

Mixing ratio (volume)	4 parts Comp. A (base) to be mixed thoroughly with 1 part Comp. B (curing agent).
Mixing	½ hour prior to use.
Pot life (23°C)	8 hours. (Reduced at higher temp.)
Thinner/Cleaner	Jotun Thinner No. 17
Guiding data airless spray	
Pressure at nozzle	15 MPa (150 kp/cm² 2100 psi)
Nozzle tip	0.46 - 0.58mm (0.018-0.023")
Spray angle	40 - 80°
Filter	Check to ensure that filters are clean.

Drying time

Drying times are generally related to air circulation, temperature, film thickness and number of coats, and will be affected correspondingly. The figures given in the table are typical with:

* Good ventilation (Outdoor exposure or free circulation of air)
* Typical film thickness
* One coat on top of inert substrate

Substrate temperature	**10°C**	**23°C**	**40°C**
Surface dry	2 h	1 h	0.5 h
Through dry	14 h	6.5 h	3 h
Cured	14 d	7 d	3 d
Dry to recoat, minimum [1]	8 h	4 h	3 h
Dry to recoat, maximum [1]			

1 Provided the surface is free from chalking and other contamination prior to application, there is normally no overcoating time limit. Best intercoat adhesion occurs, however, when the subsequent coat is applied before preceding coat has cured. If the coating has been exposed to direct sunlight for some time, special attention must be paid to surface cleaning and mattening/removal of the surface layer in order to obtain good adhesion.

The given data must be considered as guidelines only. The actual drying time/times before recoating may be shorter or longer, depending on film thickness, ventilation, humidity, underlying paint system, requirement for early handling and mechanical strength etc. A complete system can be described on a system sheet, where all parameters and special conditions could be included.

Typical paint system

Penguard Primer	**1 x 50 µm**	**(Dry Film Thickness)**
Penguard HB	1 x 100 µm	(Dry Film Thickness)
Penguard Topcoat	1 x 50 µm	(Dry Film Thickness)

Other systems may be specified, depending on area of use

SPECIAL WASHING PROCEDURE WHEN THIS PRODUCT IS USED IN TANKS FOR POTABLE WATER

Either

After the paint is cured (see drying/curing time above), the tank is filled with warm water (above 60 - 80°C), which shall remain in the tank for 24 hours. Then the tank is thoroughly washed, using water of min. 80°C together with brushes or washed with steam

or

After the paint is cured (see drying/curing time above), the tank shall be ventilated with warm air, min 23°C for 7 days. Then the tank is filled three times with warm water (min. 50°C), each filling shall remain in the tank for 24 hours. Finally, the tank is washed, using water of min. 50°C together with brushes or washed with steam

Storage

The product must be stored in accordance with national regulations. Storage conditions are to keep the containers in a dry, cool, well ventilated space and away from source of heat and ignition.Containers must be kept tightly closed.

Handling

Handle with care. Stir well before use.

Packing size

16 L. Comp. A (base) and 4 L. Comp. B (curing agent)
4 L. Comp. A (base) and 1 L. Comp. B (curing agent)
Packing may vary from country to country according to local requirements.

Health and safety

Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not breathe or inhale 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.

For detailed information on the health and safety hazards and precautions for use of this product, we refer to the Material Safety Data Sheet.

DISCLAIMER

The information in this data sheet is given to the best of our knowledge based on laboratory testing and practical experience. However, as the product is often used under conditions beyond our control, we cannot guarantee anything but the quality of the product itself. We reserve the right to change the given data without notice.

Head Office & Nordic
Jotun Paints
P.O. Box 2021
N-3248 Sandefjord
Norway
Phone +47 33 45 70 00
Fax +47 33 46 46 13

Europe
Jotun Paints (Europe) Ltd.
Stather Road, Flixborough
North Lincolnshire DN15 8RR
United Kingdom
Phone +44 172 44 00 000
Fax +44 172 44 00 100

Middle East
Jotun U.A.E Ltd. LLC.
Al Quoz Industrial Area
P.O Box 3671
Dubai U.A.E
Phone +971 4 3 39 50 00
Fax +971 4 3 38 06 66

South East Asia
Jotun (Singapore) Pte. Ltd.
No 11-15, Sixth Lok Yang Road
Jurong
Singapore 628 111
Phone +65 6265 4711
Fax +65 6265 7484

Jotun is a World Wide company with factories, sales offices and stocks in more than 50 countries. For your nearest local Jotun address please contact the nearest regional office or visit our website at www.jotun.com

ISSUED 13 FEBRUARY 2002 BY JOTUN PAINTS
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