

Fontecoat FD 20

DESCRIPTION

A two-component, semi-matt water-borne epoxy direct-to-metal paint.

PRODUCT FEATURES AND RECOMMENDED USES

- Very fast curing. May help speeding up the painting process and decrease the overall costs of the painting system. Less downtime is a remarkable benefit.
- Self-priming. Fontecoat FD 20 has been especially developed for use as single-coat paint. Due to its highly developed anti-corrosive properties, the product provides long-term protection for steel constructions, machinery and equipment in process and other industries.
- Easy to apply. Can be applied in thick layers, thus enabling a faster painting process. Good hiding power simplifies painting of weldings and seems. Less dry dust formation during spraying makes this water-borne product even more user-friendly.
- Used as a topcoat or as a single coat paint in epoxy paint systems for steel surfaces.
- Excellent adhesion and surface tolerance when used with Temakeep adhesion primer, allowing extremely fast cycle times.
- Can also be used as a primer or intermediate coat in epoxy / polyurethane systems.
- Very good resistance against mechanical and chemical stress.
- Fulfils the requirement of LEED v4 (according to the method accepted for investments realized outside USA), BREEAM, BREEAM-SE and BREEAM-NOR classification system.
- The M1 classification for low-emitting building materials has been granted by the Finnish Building Information Foundation RTS.
- Environmental product declaration (EPD) in accordance with EN 15804+A2 & ISO 14025 / ISO 21930.
- Recommended for framework, service platforms, conveyors and other steelwork, machinery and equipment.



TECHNICAL DATA

Volume solids 44±2% (mixture, ISO 3233)

Weight solids 61±2% (mixture)

Specific gravity 1.4 kg/l (mixture)

Mixing ratio
Base 1 part by volume Fontecoat FD 20
Hardener 1 part by volume Hardener 007 1021

Pot life (+23°C) 1h

Recommended film thicknesses and theoretical coverage

Recommended film thicknesses		Theoretical coverage
wet	dry	
150µm	60µm	6.7 m²/l
225µm	100µm	4.4 m²/l
275µm	120µm	3.6 m²/l

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Practical coverage depends on the application method, painting conditions and the shape and roughness of the surface to be coated.

Note! The painting work should be performed and supervised according to 12944-7 if not otherwise stated in the respective technical data sheet. Excessive film thickness may result e.g. in cracking, sagging, prolonged drying time, soft film, less chemical resistance, gloss deviation, adhesion and intercoat functionality. In case the product is used otherwise than stated in the standard a written approval from Tikkurila is required.

Drying time

DFT 100µm	+15°C	+23°C	+35°C
Dust dry, after	3h	< 1 h	0.5h
Touch dry, after	6h	2h	1h
Fully cured, after	14d	7d	3d
Recoatable without roughening, max. 6 months			

Drying and recoating times are related to the film thickness, temperature, the relative humidity of the air and ventilation.

Water-borne paints and coatings are sensitive to moisture and cold before they are completely dry. Painted surfaces must be stored indoors at a temperature of min. +20°C for at least 40 hours before exposed to weather conditions. Forced drying may shorten the time before exposing the painted objects to outdoors. Please consult Tikkurila Technical Service for more information.

Gloss

Semi-matt.

Color shades

RAL, NCS, SSG, BS, MONICOLOR NOVA and SYMPHONY color cards. Temaspeed Fonte tinting.

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APPLICATION INSTRUCTIONS

Surface preparation	Oil, grease, salts and dirt are removed by appropriate means. (ISO 12944-4)
	Steel surfaces: Blast clean to grade Sa2½. (ISO 8501-1) If blast cleaning is not possible, phosphating is recommended for cold rolled steel to improve adhesion.
	Primed surfaces: Oil, grease, salt and dirt are removed from the surface by appropriate means. Repair any damage to the primer coat. Note the overcoating time of primer. (ISO 12944-4)
Recommended primers	Fontecryl AP, Fontezinc 85, Fontecoat EP 50, Fontecoat EP 50 Beige, Temazinc 77, Temazinc 99, Temacoat GPL-S Primer, Temakeep.
	Note! Temakeep (overcoating on touch dry surface).
Recommended topcoats	Fontecoat EP 50, Fontecoat FD 20, Fontedur HB 80.
Application conditions	All surfaces must be clean, dry and free from contamination. The temperature of the ambient air, surface and paint should not fall below +15°C during application and drying. Relative humidity of the air should not exceed 70% during application and drying. If the ambient relative humidity is 70% or higher, appropriate measures must be taken to reduce the relative humidity in the drying stage (forced drying or dehumidifier). The surface temperature of steel should remain at least 3°C above the dew point. Good ventilation and sufficient air movement is required in confined areas during application and drying.
Mixing components	First stir base and hardener separately. The correct proportions of base and hardener must be mixed thoroughly before use. Use power mixer for mixing. Insufficient mixing or incorrect mixing ratio will result in uneven drying of the surface and weaken the properties of the coating.
Application	To obtain the best possible result air-assisted airless spraying is recommended.
	For air-assisted airless spraying, the product is thinned max 10% if needed. Recommended nozzle tip is 0.011"–0.017" and pressure 140–200 bar. Atomising air pressure should be 1–2 bar. Spray angle shall be chosen according to the shape of the object.
	For airless spraying, the product is thinned max 10% if needed. Recommended nozzle tip is 0.011"–0.017" and pressure 140–200 bar. Spray angle shall be chosen according to the shape of the object. 160µm DFT should not be exceeded.
	For brush application product should be thinned according to the circumstances.
	Separate application instructions are available on request.
Thinners	Water
Cleaning of equipment	Thinner 1109
	Clean the spraying equipment immediately after use as follows: 1. Run the equipment with water to remove excess paint from the equipment. 2. Run the equipment with Thinner 1109, at least two times.
	Wash the equipment with water before starting to paint again. Unwashed equipment can cause serious surface defects.
	Contact Tikkurila Technical Service for detailed instructions for cleaning 2-component application equipment.



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VOC	The Volatile Organic Compounds amount is 72g/litre of paint mixture. VOC content of paint mixture (thinned by 10% by volume) 67g/l. VOC 2004/42/EC (cat A/j) 140 g/l (2010)
HEALTH AND SAFETY	Containers are provided with safety labels, which should be observed. Further information about hazardous influences and protection are detailed in individual health and safety data sheets. A health and safety data sheet is available on request from Tikkurila Oyj.

For industrial and professional use only.

The above information is not intended to be exhaustive or complete. The information is based on laboratory tests and practical experience, and it is given to the best of our knowledge. The quality of the product is ensured by our operational system, based on the requirements of ISO 9001 and ISO 14001. As manufacturer we cannot control the conditions under which the product is being used or the many factors that have an effect on the use and application of the product. We disclaim liability for any damages caused by using the product against our instructions or for inappropriate purposes. We reserve the right to change the given information unilaterally without notice.

The product is intended for professional use only and shall only be used by professionals who have sufficient knowledge and expertise on the proper use of the product. The information above is advisory only. To the extent permitted by applicable law, we shall not approve of any liability for the conditions under which the product is being used or for the use or application of the product.

In case you intend to use the product for any other purpose than that recommended in this document without first getting our written confirmation on the suitability for the intended use, such use takes place at your own risk.