



FIREMAL 200

DESCRIPTION



A one-component primer-enamel with phosphate pigment.
Intumescent paint designed for fire protection from R-15 to R-60.

COLOUR



White

PROPERTIES

- fire protection up to 1 hour
- very fast drying time
- very high resistance to mechanical factors
- resistance to chemical agents (temporary effects of alcohols, fuels and mineral oils)
- low solvent content
- resistance to aggressive factors of the urban and industrial atmosphere

USAGE

- energy industry, chemical and construction industries
- indoors and outdoors, under the influence of environmental factors Z1, Z2, X, Y
- under corrosive environment conditions C1-C5

SPECIFICATIONS



Brookfield viscosity 5000-10000 mPas for an ambient temperature of 20±2°C

Density 1,42 (±0,05) g/cm³

VOC content of volatile organic compounds To 235 g/l

Solid content 81 (±3) Volume %

Covering power, color stability The product has very good coverage.
An aggressive chemical environment can affect color stability.

Layer thickness

DFT " dry film thickness"	WFT " wet film thickness"	Theoretical consumption		Theoretical performance
[µm]	[µm]	[l/m ²]	[kg/m ²]	[m ² /l]
100	125	0,12	0,18	8,10
200	250	0,25	0,35	4,05
300	370	0,37	0,53	2,70



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APPLICATION



Application method

Brush (small areas), roller, pneumatic spray, airless spray.

Hydrodynamic spraying

Nozzle tip	Dilute %	Pressure
0,019 - 0,025 "	0 – 5 %	100 - 250 Bar

The width of the sprayed jet, the so-called spray angle, should be chosen taking into account the shape and size of the surface to be painted.

Air spraying parameters

Nozzle tip	Dilute %	Pressure
1,5 - 2,5 mm	5 – 10 %	2,5 - 5,0 Bar

The recommended product flow time measured with Ford Cup No. 4 for pneumatic spraying is within 25 - 35 seconds.

These parameters should be compared with those recommended by the spray gun manufacturer.

Thinner

THINNER TER production of Malchem.

Recommended number of layers

Depending on the fire load requirements.

Coating enamels

PURMAL products production of Malchem.

Surface preparation

Surface	Preparation
Steel	The surface should be cleaned to at least grade 2 in accordance with PN-EN ISO 8501-1: 2008 (excluding applications in the C5-I and C5-M environment, for which the degree of cleaning is Sa 2 ½). Dry ground, free of corrosion, scale, dust, grease, oil, salt and all other contaminants. To degrease the surface, it is recommended to use MALCHEM Cleanmal Top.
Galvanized steel, aluminum	The galvanized and aluminum surface should be cleaned of the abovementioned impurities, degrease very thoroughly with Malchem CleanMal Top and dried. In addition, it is recommended to lightly sweep the so-called abrasive "Sweeping" or washing with water and ammonia (slightly alkaline pH) and rinsing thoroughly.

Application conditions

- Temperature: minimum substrate +5°C, minimum 3°C above dew point temperature, minimum ambient +5°C
- Humidity: maximum relative air 80%
- Safety: efficient and adequate ventilation in the workplace



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Drying times
(at temp. 2 °C and relative
humidity 55±5%)

For layer DFT 250 (±10%) µm (in temp. 20±2°C and relative humidity 55±5%)	
Degree 1	25 min
Degree 3	1 h
Completely cure	7 days
Minimum for applying the next coat	1 h

These parameters may vary with changing environmental conditions, the number and thickness of the layers. The negative effect on the curing of the coating is, first of all, insufficient temperature and high humidity (rain, condensation of water vapor).

ADDITIONAL INFORMATION

Storage



The material should be stored in original, tightly closed containers, away from possible sources of fire, in places exposed to direct sunlight or elevated temperatures, children should be protected from access to products, storage temperature: from 5°C to 30°C.

Shelf life



The minimum shelf life indicated on the package is the value of the indication, which depends on a number of factors - first of all, the method and temperature of storage. After exceeding the specified date, the quality of the product must be reviewed.

Safety information



Information on the presence, detection of threats, actions during first aid and in case of fire, as well as environmental and legal regulations can be found in the safety data sheet, which can be obtained from the manufacturer Malchem.

Basic security measures

- Read the information on the product packaging.
- Efficient and appropriate ventilation at the workplace.
- Avoid contact with skin and inhalation of vapors.
- Use of costumes, gloves and masks.
- If the product comes in contact with skin, wash the area with warm water and soap or other detergent.

In case of contact of the product with eyes, rinse immediately with water and seek medical advice immediately.

PRODUCT IS INTENDED FOR PROFESSIONAL USE ONLY

The above information is based on our current knowledge and experience. However, they are not completely exhaustive and complete. We provide them in good faith based on laboratory research and practical experience. However, due to the variety of methods, application and usage conditions, they should be verified in specific applications. The product is intended only for professional and industrial use by persons who have sufficient knowledge and experience in its use. The manufacturer cannot control the conditions under which the product is used. Under applicable regulations, we do not take responsibility for damages caused by using the product in a manner inconsistent with applicable standards and recommendations. Use of the product for purposes other than indicated in this document only and exclusively at the user's own risk. The product information provided is subject to change without notice.