NOVAGUARD 890

Globally Available

4 pages

April 2009
Revision of November 2008

DESCRIPTION

two component solvent free amine cured phenolic epoxy coating

PRINCIPAL CHARACTERISTICS

- one coat tank coating system
- excellent resistance to crude oil up to 90°C
- suitable for storage of unleaded gasolines blended up to 100% ethanol (E5 up to E100)
- suitable for storage of biodiesel (EN14214)
- good chemical resistance against a wide range of chemicals and solvents
- good visibility due to light colour
- semigloss and smooth appearance
- clear version for glassmat reinforced solvent free tank bottom system (see system sheet 4155)
- easy to clean
- can be applied by heavy duty single feed airless spray equipment (60:1)
- reduced explosion risk and fire hazard

COLOURS AND GLOSS

green, cream, clear - semigloss

BASIC DATA AT 20°C

(1 g/cm³ = 8.25 lb/US gal; 1 m²/l = 40.7 ft²/US gal)
(data for mixed product)

Mass density	1.4 g/cm³
Volume solids	100%
VOC (supplied)	max. 94 g/kg (Directive 1999/13/EC, SED) max. 131 g/l (approx. 1.1 lb/gal) see information sheet 1411
Recommended dry film thickness	300 - 600 µm depending on system
Theoretical spreading rate	3.3 m²/l for 300 µm *
Touch dry after	8 hours
Overcoating interval	min. 24 hours * max. 2 months *
Full cure after	6 days *
	(data for components)
Shelf life (cool and dry place)	at least 12 months

* see additional data

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- steel; blast cleaned to a minimum of ISO-Sa2½, blasting profile 50 - 100 µm
- substrate temperature should be above 5°C and at least 3°C above dew point during application and curing
- steel with suitable primer (SigmaGuard 260) which must be dry, clean and free from any contamination

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INSTRUCTIONS FOR USE

mixing ratio by volume: base to hardener 80 : 20

- the temperature of the mixed base and hardener should preferably be at least 20°C
- at lower temperature the viscosity will be too high for spray application
- no thinner should be added
- for recommended application instructions: see working procedure

Induction time: none

Pot life: 1 hour at 20°C *
* see additional data

AIRLESS SPRAY

use heavy duty single feed airless spray equipment preferably 60:1 pump ratio and suitable high pressure hoses

Recommended thinner: no thinner should be added
Nozzle orifice: approx. 0.53 mm (= 0.021 in)
Nozzle pressure: at 20°C (paint temperature) min. 28 MPa (= approx. 280 bar; 4000 p.s.i.)
at 30°C (paint temperature) min. 22 MPa (= approx. 220 bar; 3000 p.s.i.)

BRUSH/ROLLER

for stripe coating and spot repair only

Recommended thinner: no thinner should be added

CLEANING SOLVENT

Thinner 90-83 (preferred) or Thinner 90-53

- all application equipment must be cleaned immediately after use
- paint inside the spraying equipment must be removed before the pot life time has been expired

SAFETY PRECAUTIONS

for paint and recommended thinners see safety sheets 1430, 1431 and relevant material safety data sheets

although this is a solvent free paint, care should be taken to avoid inhalation of spray mist as well as contact between the wet paint and exposed skin or eyes

- no solvent present; however, spray mist is not harmless, a fresh air mask should be used during spraying
- ventilation should be provided in confined spaces to maintain good visibility

ADDITIONAL DATA

Film thickness and spreading rate

theoretical spreading rate m²/l	3.3	1.7
dft in µm	300	600

max. dft when brushing: 150 µm

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measuring wet film thickness
- a deviation is often obtained between the measured apparent wft and the real applied wft
- this is due to the thixotropy and the surface tension of the paint which retards the release of air trapped in the paint film for some time
- recommendation is to apply a wft which is equal to the specified dft plus 60 µm

measuring dry film thickness
- because of low initial hardness the dft cannot be measured for some days (depending on ambient temperature) after application due to the penetration of the measuring device into the paint film
- the dft should be measured using a calibration foil of known thickness placed in between the coating and the measuring device

Overcoating table with itself (spot repair and stripe coating)

substrate temperature	10°C	20°C	30°C
minimum interval	36 hours	24 hours	16 hours
maximum interval	3 months	2 months	1 month

- surface should be dry and free from any contamination

Curing table

substrate temperature	dry to handle	full cure
10°C	40 hours	10 days
20°C	18 hours	6 days
30°C	12 hours	4 days

- adequate ventilation must be maintained during application and curing (please refer to sheets 1433 and 1434)
- for storage and transport of drinking water the recommended working procedure should be followed

Pot life (at application viscosity)

20°C	60 min.
30°C	45 min.

- due to exothermic reaction, temperature during and after mixing may increase

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Worldwide availability

Whilst it is always the aim of PPG Protective & Marine Coatings to supply the same product on a worldwide basis, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

REFERENCES

Explanation to product data sheets	see information sheet 1411
Safety indications	see information sheet 1430
Safety in confined spaces and health safety	
Explosion hazard - toxic hazard	see information sheet 1431
Safe working in confined spaces	see information sheet 1433
Directives for ventilation practice	see information sheet 1434
Cleaning of steel and removal of rust	see information sheet 1490
Specification for mineral abrasives	see information sheet 1491

	PDS	7755
269264	green	4194542200
282887	cream	3002002200