New Guard Coatings Group

A global reputation to protect.

The information herewith is given with the best of New Guard Coatings Group knowledge.

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This information is not exhaustive and it is the user's responsibility to ensure that this data sheet is the most current by contacting their local New Guard Coatings Group branch prior to using the coating/product.

STEELGUARD™ 564

DESCRIPTION

One-component, thin-film, solvent-borne intumescent coating for fire protection of structural steelwork

PRINCIPAL CHARACTERISTICS

- Provides up to 120 minutes protection from cellulosic fires
- Fast-drying, providing short handling times
- Off-site or on-site application
- Up to 1000 µm (40.0 mils) DFT in a single coat
- Suitable for C1 to C4 internal and external environments (ISO 12944); for dry internal (C1) environments no topcoat is required
- Weather resistant up to 12 months without topcoat provided the coating has been applied in accordance with INFORMATION SHEET 1222 and is not subject to running or pooling water, high humidity or immersion conditions
- Tested and assessed to international and national standards such as BS 476-20/21 and Factory Mutual Class number 4970 and certified with various national requirements

COLOR AND GLOSS LEVEL

- White
- Matt

BASIC DATA AT 20°C (68°F)

Data for product	
Number of components	One
Mass density	1.34 kg/l (11.18 lb/US gal)
Volume solids	75 ± 3%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 255.0 g/kg UK PG 6/23(92) Appendix 3: max. 327.0 g/l (approx. 2.7 lb/US gal)
Recommended dry film thickness	200 - 1000 µm (8.0 - 40.0 mils) per coat
Theoretical spreading rate	1.07 m^2/l for 700 µm (43 ft^2/US gal for 28.0 mils)
Dry to touch	20 minutes
Overcoating Interval	Minimum: 4 hours Maximum: Unlimited
Shelf life	At least 18 months when stored cool and dry

Notes:
- See ADDITIONAL DATA – Spreading rate and film thickness
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time
- The required dry film thickness must be in accordance with the approval certification

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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Approved primer must be sound, dry and free from any contamination

Substrate temperature and application conditions

- Substrate temperature during application and curing should be between 5°C (41°F) and 40°C (104°F)
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point
- Ambient temperature during application and curing should be between 5°C (41°F) and 40°C (104°F)
- Relative humidity during application and curing should not exceed 85%

INSTRUCTIONS FOR USE

- Stir thoroughly until homogeneous and free of lumps
- Adding too much thinner results in reduced sag resistance and slower cure

Airless spray

Recommended thinner
THINNER 21-06 (normally no thinner required)

Volume of thinner
0 - 5%

Nozzle angle
20° – 50°, depending on shape of steel parts

Nozzle orifice
Approx. 0.48 – 0.64 mm (0.019 – 0.025 in)

Nozzle pressure
20.0 MPa (approx. 200 bar; 2901 p.s.i.)

Notes:
- All filters, including surge bottle and gun filters to be removed
- External fluid uptake pipe filter is recommended

Brush/roller

- For small areas only (touch up and repair)

Recommended thinner
No thinner should be added

Cleaning solvent
THINNER 21-06

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ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
200 µm (8.0 mils)	3.75 m^2/l (150 ft^2/US gal)
400 µm (16.0 mils)	1.88 m^2/l (75 ft^2/US gal)
500 µm (20.0 mils)	1.50 m^2/l (60 ft^2/US gal)
700 µm (28.0 mils)	1.07 m^2/l (43 ft^2/US gal)
1000 µm (40.0 mils)	0.75 m^2/l (30 ft^2/US gal)

Note: Maximum DFT when brushing: 300 µm (12.0 mils)

Overcoating interval for DFT up to 700 µm (28.0 mils)						
Overcoating with...	**Interval**	**5°C (41°F)**	**10°C (50°F)**	**15°C (59°F)**	**20°C (68°F)**	**30°C (86°F)**
itself	Minimum	10 hours	8 hours	6 hours	4 hours	3 hours
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited

Overcoating interval for DFT up to 1000 µm (40.0 mils)						
Overcoating with...	**Interval**	**5°C (41°F)**	**10°C (50°F)**	**15°C (59°F)**	**20°C (68°F)**	**30°C (86°F)**
STEELGUARD 2458	Minimum	2 hours	1.5 hours	1 hour	30 minutes	20 minutes
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
other approved topcoats	Minimum	3 days	60 hours	48 hours	24 hours	16 hours
	Maximum	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited

Curing time for DFT up to 700 µm (28.0 mils)	
Substrate temperature	**Dry to touch**
5°C (41°F)	1 hour
10°C (50°F)	45 minutes
15°C (59°F)	30 minutes
20°C (68°F)	20 minutes
30°C (86°F)	10 minutes

Note: Drying times may vary considerably depending on ambient conditions, A/V m^{-1} (Hp/A) of section and applied film thickness

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SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets
- This is a solvent-borne paint and care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes

REFERENCES

• STEELGUARD™ APPLICATION GUIDELINES	INFORMATION SHEET	1222
• STEELGUARD™ QUALIFIED PRIMERS	INFORMATION SHEET	1224
• STEELGUARD™ QUALIFIED TOPCOATS	INFORMATION SHEET	1226
• CONVERSION TABLES	INFORMATION SHEET	1410
• EXPLANATION TO PRODUCT DATA SHEETS	INFORMATION SHEET	1411
• SAFETY INDICATIONS	INFORMATION SHEET	1430
• SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD – TOXIC HAZARD	INFORMATION SHEET	1431
• CLEANING OF STEEL AND REMOVAL OF RUST	INFORMATION SHEET	1490
• SPECIFICATION FOR MINERAL ABRASIVES	INFORMATION SHEET	1491
• RELATIVE HUMIDITY – SUBSTRATE TEMPERATURE – AIR TEMPERATURE	INFORMATION SHEET	1650

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