

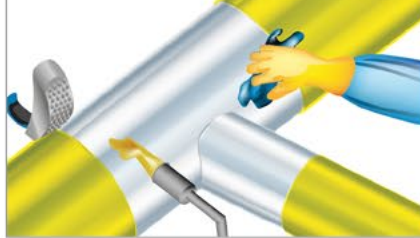
FORTIDE®

Important information



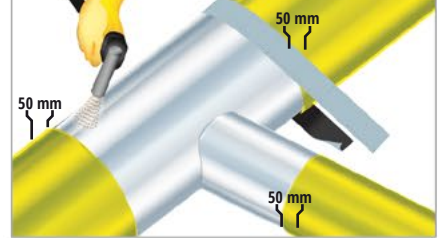
- Sharp shot shall be used in the blasting process for rust removal (see table).
- The FORTIDE® coating shall be applied immediately after surface preparation, no later than within 2 hours.
- Start application immediately after mixing the components.
- Do not seal the container with mixed components due to the possible significant heat development.
- If masking tape is used, remove this while FORTIDE® is still tacky

1. Cleaning and transition to the factory coating



- The surfaces to be coated (steel surface and adjacent factory coating) shall be clean and free of dust and grease.
- All contamination that impairs adhesion (e.g. grease, oil, primers, temporary corrosion protection, coupling agents, etc.) shall be removed prior to application.
- Chamfer the transitions to the adjacent factory coating with a spherical rasp (incline $\leq 30^\circ$). Remove swarf.
- Activation of the factory coating in the coating area by sweeping over with the propane gas flame.

2. Surface preparation



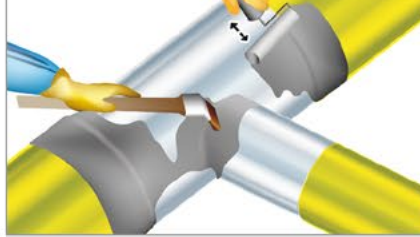
- Blasting for rust removal of the entire steel area to be coated to min. Sa 2½ (ISO 8501-1), surface roughness 40 - 100 µm.
- Roughen the factory coating using an abrasive cloth (#40), rubbing in a circumferential direction across a width of at least 50 mm. Remove swarf followed by professional cleaning.
- To achieve a clean finish, the factory coating can be masked with masking tape behind the 50 mm mark.

3. Mixing the components (only for brush and roller application)



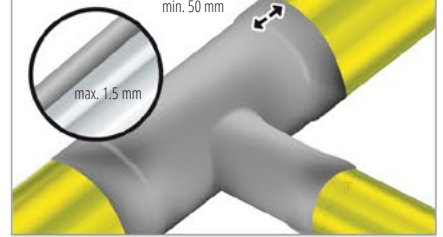
- Pre-heat components if necessary.
- Shake the container for component B well before use and empty the entire contents in component A.
- First, start mixing slowly in order to minimize the introduction of air.
- Then increase the stirring speed, continuing to keep the introduction of air to a minimum.
- Mix the components for at least 2 minutes until a homogeneous colouration, without marbling or streaking. Occasionally scrape along the circumference of the inner wall of the container to include adhering components into mixture.

4a. First brush and roller application



- Pour the mixed material on to the Pipe surface starting from Top area and homogeneously roll up and down in a circumferential direction.
- Carefully "massage" the first application evenly, thinly and without introducing air across the entire surface, applying gentle pressure, with a laminating roller or laminating brush.

5a. Finalization brush and roller application



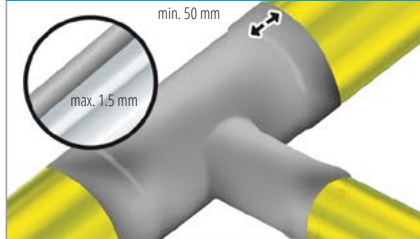
- Subsequent coats can be applied on previous layer (when the previous layer is wet), so as to achieve a total layer thickness of up to 1.5 mm.
- Check the coating thickness at various points with a wet film thickness (WFT) gauge.
- Apply on the adjacent factory coating in a width of at least 50 mm.
- Smoothing with a laminating brush can help achieve a particularly smooth surface.
- Additional applications can take place as long as the surface is still tacky.
- Non-tacky coatings require roughening before applying the next coats.

4b. Start of hot-airless spray application



- Discard the initial quantity.
- In continuous spray application, the coating can be evenly applied with multiple passes keeping spray gun at a distance of 30 - 50 cm.

5b. Finalization of hot-airless spray application



- Apply on the adjacent factory coating in a width of at least 50 mm.
- For large surfaces, proceed by wet-on-wet and coat the entire area evenly and free from any misses.
- Check the coating thickness at various points with Wet Film Thickness (WFT) gauge. The maximum total layer thickness is 1.5 mm.
- Discard the initial quantity after every interruption of the application process.
- Additional applications can take place as long as the surface is still tacky.
- Non-sticky coatings can only be coated after roughening

Important information on curing/inspection



- The curing time depends on the temperature (see table).
- Coatings shall be protected against humidity and precipitation until they are fully cured to the point where they are no longer sticky.
- Keep the material temperature at $>+10^\circ\text{C}$ ($+50^\circ\text{F}$) until curing is complete.
- The finished coating shall be checked to ensure it is free of holidays. Test voltage 5 kV per mm layer thickness, maximum 25 kV (DIN EN ISO 21809-3).
- Adequate curing at shore D hardness ≥ 75 .



FORTIDE®

Product	Application	Relative humidity (%)	Processing temperature		Density (g/cm³) Comp. A / Comp. B / Mixture	Mixing ratio A : B	Times at ambient temperature				Storage temperature °C (°F)	Compatible factory coatings
			Surface °C (°F)	Material °C (°F)			Times	+10 °C (+50 °F)	+20 °C (+68 °F)	+40 °C (+104 °F)		
FORTIDE®-ST	Painting	≤80	+10 to +50 (+50 to +122) and min. +3 (+5.4) above dew point	+15 to +30 (+59 to +86)	1.57 / 1.00 / 1.44	by weight 100 : 21 by volume 3 : 1	Pot life (250 g)	ca. 50 min.	ca. 16 min.	ca. 5 min.	+5 to +30 (+41 to +86) store upright	PE, PP PU, FBE
	tack-free			ca. 3 h			ca. 1 h	ca. 25 min.				
loadable	ca. 22 h			ca. 6 h	ca. 1.5 h							
Spraying	A component ca. +60 to +75 (+140 to +167) B component approx. +15 to +30 (+59 to +86)				tack-free		ca. 1.5 h	ca. 45 min.	ca. 16 min.			
loadable	ca. 13 h			ca. 4 h	ca. 1.2 h							
FORTIDE®-HT	Painting			+15 to +30 (+59 to +86)	1.44 / 1.03 / 1.36	by weight 100 : 23.5 by volume 3 : 1	Pot life (250 g)	ca. 2 h	ca. 30 min.	ca. 18 min.		
	tack-free	ca. 5 h	ca. 2 h	ca. 45 min.								
loadable	ca. 24 h	ca. 8 h	ca. 1.5 h									
Spraying	A component approx. +70 to +80 (+158 to +176) B component approx. +15 to +30 (+59 to +86)		tack-free	ca. 4 h	ca. 1.5 h		ca. 28 min.					
loadable	ca. 16 h	ca. 5 h	ca. 1.5 h									
FORTIDE®-TL	Painting			+15 to +30 (+59 to +86)	1.47 / 1.04 / 1.36	by weight 100 : 25.5 by volume 2.7 : 1	Pot life (250 g)	ca. 2.5 h	ca. 37 min.	ca. 10 min.		
	tack-free	ca. 5 h	ca. 2.5 h	ca. 45 min.								
loadable	ca. 24 h	ca. 10 h	ca. 3 h									
Spraying	A component approx. +60 to +75 (+140 to +167) B component approx. +15 to +30 (+59 to +86)		tack-free	ca. 4 h	ca. 2 h		ca. 35 min.					
loadable	ca. 21 h	ca. 5 h	ca. 3 h									
FORTIDE®-WS (also on moist surface)	Painting			+15 to +30 (+59 to +86)	1.58 / 1.00 / 1.41	by weight 100 : 28	Pot life (250 g)	ca. 1.5 h	ca. 35 min.	ca. 7 min.		
							tack-free	ca. 5 h	ca. 2.5 h	ca. 50 min.		
							loadable	ca. 24 h	ca. 9 h	ca. 3 h		
Surface preparation			Remove loose factory coatings, even out notches and indentations and chamfer corners to an angle of ≤ 30°. Roughen adjacent factory coatings to a minimum of 50 mm with an #40 abrasive cloth in a peripheral direction. Surface cleanliness: Blast the exposed steel area min. Sa 2½ (ISO 8501-1), surface roughness 40 µm to 100 µm, dry and free from grease, dust etc.									
Safety & environmental protection			The installation shall take place in accordance with customary and local environmental and safety standards. Safety and environmental notices on labels and safety data sheets shall be heeded. Wear personal protective equipment such as safety goggles, safety gloves and appropriate work clothing.									