

Technical Data Sheet

Product Description

Gentoo XD is a clear, hydrophobic sol-gel chemistry that is specifically formulated for easy cleaning and corrosion protection. It is a low viscosity solvent-based system that can be applied with roller or brush, by flow-coating, dip-coating, or by spray application. It is water resistant and repels many paints, solvents, and hydrocarbons. It is harder, more durable, and more resistant to impact than standard Gentoo.

Product Characteristics

Finish:	Glossy
Color:	Clear
Percent Solids:	15 - 20% (Part A and Part B combined)
VOC:	700 g/L (5.84 lbs/gal) (Part A and Part B combined)

Typical Properties

Contact Angle:	110° - 115° (1 µL droplet)
Watershedding Angle:	5° - 10°
Dry Thickness:	5 - 10 microns
Service Temperature Range:	-50°C - 160°C (-58°F - 320°F); Short Term: <200°C (<392°F)
Shelf Life:	One year in original packaging at 24°C (75°F)

Surface Preparation

Remove all oil, grease, dust, dirt, loose rust, and other foreign materials to promote optimum adhesion. Clean smooth surfaces with 99% isopropyl alcohol (IPA) and microfiber cloth or other lint-free cloths. Gentoo XD may not bond to all types of plastic without further preparation. Corona treatment, flame treatment or abrasive surface preparation may be required to attain adequate adhesion on plastics. The use of a rubber primer may improve adhesion of Gentoo XD to rubber. For best results when applying Gentoo XD to painted surfaces, apply Gentoo XD when the paint is still "green" (dry to the touch, but not fully cured).

Personal Protective Equipment

Flow, Dip, Brush or Roller Coating: always wear the following minimum personal protective equipment: safety goggles and nitrile gloves. A paint suit/Tyvek suit is recommended. If engineering ventilation controls are not available or sufficient, use a respirator (NIOSH/MSHA approved half-face respirator with an organic vapor cartridge) to protect from solvent vapors. Refer to Safety Data Sheets (SDSs) for both Part A and Part B before beginning to apply Gentoo XD.

Personal Protective Equipment *cont.*

Spray Coating: DO NOT spray Gentoo XD without sufficient engineering ventilation controls or without making a minimum of full-face respirators with OV/AG/P100 filters (OV = Organic Vapor; AG = Acid Gas) available to all those exposed to Gentoo XD spray. Wear nitrile gloves. A paint suit/Tyvek suit is recommended. Refer to Safety Data Sheets (SDSs) for both Part A and Part B before beginning to apply Gentoo XD.

Application Guidelines

Mix Ratio:	1:1 Part A to Part B (by weight). Blanket any unused Part A with argon (preferred) or nitrogen gas.
Hydrolysis Time:	120 - 150 minutes at 18°C - 24°C (65°F - 75°F)
Filtration:	1-micron glass fiber filters
Brush, flow, dip:	Use equipment designed for solvents or oil-based paints
Spray (settings):	HVLP with 1.0 mm needle/tip and gun pressure less than 20 psi
Drying/Curing:	Tack free in 45 minutes at 25°C (77°F) Curing: 1 hour at 90°C (194°F); 24-48 hours at 25°C (77°F)
Cleanup:	Cleanup immediately with acetone. Once Gentoo XD is dry, it may need to be cleaned with abrasive means
Pot Life:	Recommended use is within 8 hours after mixing (at 77 °F). Gentoo XD can be kept usable for longer periods of time at lower temperatures.

Dilution

Gentoo XD provides a durable coating layer that can stand up better to abrasion. When applying Gentoo XD in direct-to-substrate or for greater barrier properties, it is recommended to use Gentoo XD as mixed. For applications over other coating systems and for added coating flexibility, it may be necessary to dilute hydrolyzed Gentoo XD.

Gentoo XD can be diluted with standard isopropanol after 120 - 150 minutes of mixing. Diluted Gentoo XD will have a longer pot life and cover a greater surface area than undiluted Gentoo XD, and it will result in a thinner dry coating as compared to undiluted Gentoo XD.

- For a complete quart kit of Gentoo XD dilute with 1418g of IPA
- For partially used or larger kits add at a ratio of 8 parts Gentoo XD: 7 parts IPA by weight (not by volume)