



CAN RESISTANCE BE IRRESISTIBLE?

Empowering Surfaces with **Durazane®** – Protect your surfaces against the effects of scratches, high temperature, water, dirt and corrosion





YES!

WHEN IT PROTECTS BEAUTY & VALUE

A classic car with perfectly polished body paint and gleaming exhaust pipes. The bright, shiny facade of a skyscraper that resists weathering. A spotless train. What do these have in common? They are protected by coatings containing Durazane®, which offers scratch protection, high- temperature resistance, water and dirt repellency and corrosion prevention.

Coatings with Durazane® result in durable surfaces that not only gleam as if they were brand new but also protect against all kinds of damage to preserve their beauty and value.

YES! WITH DURAZANE®

Durazane® is our answer for superior surface protection. Durazane® 1000 and 2000 series are a unique class of high performance binders.

Binders

Durazane® 1000

Durazane® 1000 series are organic polysilazanes (OPSZ). When added into coatings, they form dense ceramic-like layers with a Si-N-Si and Si-O-Si structure. The layers are highly temperature resistant and provide good protection against corrosion and weathering. Because of their strong hydrophobic properties, they create an effective moisture barrier and make cleaning surfaces much easier.

Durazane® 2000

Durazane® 2000 series are inorganic polysilazane polymers (PHPS). When integrated into coatings, they add a thin film to surfaces, consisting of a quartz glass-like silicon dioxide. They add outstanding scratch resistance as well as excellent thermal and chemical resistance to coatings.

Unique advantages of Durazane® additives

- High hardness (up to 5H with OPSZ, up to 9H with PHPS – depending on formulation and substrate)
- Lasting protection on numerous types of surfaces
- Applicable in low to medium film thicknesses
- High thermal stability



Find the Durazane® product that best fits your needs by going to our website and filling out the questionnaire. You may also speak to your local sales representative.

As your solution provider, we are proud to be the only manufacturer in the world offering the entire range of organic and inorganic polysilazanes.

YES! WITH SCRATCH PROTECTION

It's nearly impossible to keep cherished possessions like a classic car or a new kitchen in top condition. With just one careless move, their pristine surfaces are marred by scratches, and over time, they lose their glossy finish. Coatings made with our Durazane® 1000 and 2000 binders offer excellent scratch resistant properties, corrosion resistance, impact and abrasion resistance. Our binders can be applied to interior and exterior surfaces.

Benefits

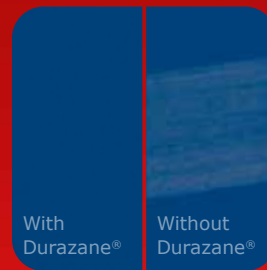
- Seals surfaces much longer than standard coatings or waxes
- Smooths surfaces significantly, making them easy to clean
- Reduces need for extensive washing

Areas of application

- Automotive parts
- Public transport such as trains and trams
- Aerospace components
- Building facades
- Interiors such as kitchens and bathrooms

Suitable substrates

- Various metals such as steel and aluminum
- Plastics
- Painted surfaces



YES! WITH HIGH-TEMP RESISTANCE

A coating's effectiveness can easily be reduced or even destroyed by thermal extremes – imagine a top-class motorcycle with a burned and stained exhaust pipe. One of the best ways to protect surface coatings is to bolster their thermal resistance, ensuring that they are capable of performing in all kinds of challenging environments. High-temperature resistance also helps products handle thermal-induced corrosion more effectively, thus safeguarding the functional and visual qualities of both the coatings and the products they protect. Our Durazane® 1000 and 2000 products provide you with perfect binders to formulate surface coatings that withstand temperatures above 1000 °C.

Benefits

- Protects against wear, abrasion and stains
- Manages exhaust heat effectively by reducing heat loss in car manifolds and headers
- Lowers fuel consumption when pistons are coated
- Reduces heat flow and transfer in thermal barrier coatings, thus dropping thermal stress imposed on coated components
- Limits heat-loss areas such as exhaust and system pipes

Areas of application

- Automotive parts
- Public transport such as trains and trams
- Aerospace components
- Industrial plants and pipes

Suitable substrates

- Various metals such as steel and aluminum



YES! WITH WATER & DIRT REPELLENCY

Even under the best circumstances, there's always something that can spoil appearances: grubby hands mess up stainless-steel sinks, cars get splashed with mud, vandals leave their marks on trains and facades. Cleaning can be extremely time-consuming and costly, and in the case of removing graffiti, aggressive chemicals may even be needed. You can't keep all dirt at bay, but by formulating coatings with the right functional ingredients, you can arm materials with the best protection. The magic word is hydrophobicity. Our Durazane® 1000 binders repel water and dirt, and help keep surfaces in mint condition.

Benefits

- Prevents damage caused to paints by abrasion and aggressive cleaning chemicals
- Reduces cleaning costs by reducing cleaning time and avoiding harsh chemicals
- Coatings made with Durazane show excellent anti graffiti properties by ASTM D6578
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Suitable areas of application

- Automotive parts
- Public transport such as trains and trams
- Marine sector
- Building facades
- Interiors such as kitchens and bathrooms
- Industrial plants

Suitable substrates

- Various metals such as steel and aluminum
- Plastics
- Glass and ceramics
- Painted surfaces
- Marble



YES! WITH CORROSION PREVENTION

Weathering, high humidity, exposure to salt water and other harsh conditions can cause corrosion and surface rust on many types of metals. Even aluminum-based materials can be harmed. On boats, building facades, cars and industrial facilities such as wind turbines, corrosion can be highly worrying due to maintenance and safety requirements. When you provide corrosion control, it is not just about keeping up appearances; it's also about preventing further damage to steel and other metals, especially on the surface. Integrate our Durazane® 1000 binders into coatings to protect surfaces and actually ward off the elements that cause corrosion – and keep high-quality materials looking good.

Benefits

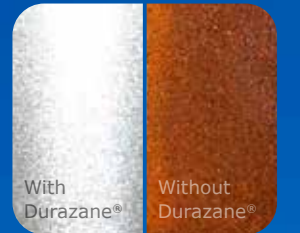
- Protects against corrosion caused by chemicals, road salt, humidity, weathering and aggressive atmospheric conditions like smog
- Extends the lifetime of coatings
- Requires less maintenance

Suitable areas of application

- Automotive parts
- Printed circuit boards
- Public transport such as trains and trams
- Marine sector
- Building facades
- Interiors such as kitchens and bathrooms
- Industrial pipelines

Suitable substrates

- Metals such as steel, aluminum, copper and silver
- Plastics



YES! WITH POWERFUL PROTECTIVE PROPERTIES

	DURAZANE® 1000 SERIES, ORGANIC POLYSILAZANES, COATING BINDERS	DURAZANE® 2000 SERIES, INORGANIC POLYSILAZANES, COATING BINDERS
PRODUCT PROPERTIES	Transparent, low-viscosity polymers available as 100% active	Low-viscosity polymers available as 20% solution in various solvents
SURFACE FEATURES	Scratch protection, water and dirt repellency, high-temperature resistance, corrosion prevention	Scratch protection, water and dirt repellency, high-temperature resistance, corrosion prevention
GENERAL CURING CONDITIONS	Thermal, moisture or UV cure (depending on product)	Thermal and moisture cure
CHEMICAL STRUCTURE AND MODE OF ACTION	Organic polysilazane polymers transform into dense ceramic-like layers upon curing 1–30 µm, medium surface hard-ness (up to 5H depending on formulation and substrate), strongly hydrophobic surface	Inorganic polysilazane polymers transform into glass-like layers upon curing <1 µm, high surface hardness(up to 9H depending on formulation and substrate), hydrophobic surface
FEATURES AND BENEFITS	The products form ceramic-like layers that are highly temperature resistant and provide excellent corrosion protection and weathering resistance. Due to their strong hydrophobic properties, they pro-vide good protection against graffiti and exhibit easy-to-clean properties	Coatings based on inorganic polysilazane resins provide a wide range of substrates with scratch protection, excellent barrier proper-ties, chemical and thermal resistance
SUITABLE SUBSTRATES	Can be applied on various metals, plastics, glass, wood, marble, stone, ceramic and other substrates	Can be applied on various metals, polymer films, plastics, and can also protect existing coatings
PRODUCT COMPATIBILITY ADVICE	Blends of different OPSZ and/or PHPS products and each of these in combination when formulating with selected resins in solvent-borne formulations are possible. No compatibility with water, protic solvents such as alcohols and other acidic components.	
APPLICATION ADVICE	OPSZ and PHPS can be applied via spray coating, wiping or dipping. Proper preparation of substrate is crucial for maximum adhesion and coating per-formance. Remove any moisture, oils and contaminants with a degreasing solvent. Keep the bottles tightly closed and away from moisture.	

	DURAZANE® 1500 RAPID CURE	DURAZANE® 1500 SLOW CURE	DURAZANE® 1800	DURAZANE® 2200	DURAZANE® 2800
CHEMISTRY	Alkoxy organic PSZ	Alkoxy organic PSZ	Vinyl organic PSZ	Si-H/Inorganic PSZ	Si-H/Inorganic PSZ
CURING METHOD	Ambient	Ambient	Heat	Heat	Ambient
FILM THICKNESS UP TO	25 µm	25 µm	25 µm	3 µm	3 µm
CURING SPEED	+++	++	+	+	+++
TEMPERATURE STABILITY	++	++	+++	+++	+++
FILM DENSITY	++	++	++	+++	+++
SCRATCH PROTECTION	++	++	++	+++	+++
CHEMICAL RESISTANCE	+++	++	++	+++	+++
WATER REPELLENCY	+++	+++	+++	++	++

YES! WITH THE RIGHT PRODUCT

ORDERING INFORMATION FOR DURAZANE® 1000

Organic polysilazanes	Item no.	Package sizes
Durazane® 1033*	214042	1 kg, 5 kg, 150 kg**
Durazane® 1066*	214047	1 kg, 5 kg, 150 kg**
Durazane® 1085*	214328	1 kg, 5 kg, 150 kg**
Durazane® 1500 rapid cure	214043	1 kg, 5 kg, 150 kg**
Durazane® 1500 slow cure	214044	1 kg, 5 kg, 150 kg**
Durazane® 1800*	214049	1 kg, 5 kg, 150 kg**

** Only available in the US and India

ORDERING INFORMATION FOR DURAZANE® 2000

Inorganic polysilazanes	Item no.	Americas	Asia	Europe	Package sizes
Durazane® 2200	213603	•	•	•	860 g, 1 quart***, 4 kg
Durazane® 2400-15	585107	•	•	•	860 g, 1 quart***, 4 kg
Durazane® 2800-15	585110	•	•	•	860 g, 1 quart***, 4 kg

*** Only available in Asia | 1 quart = 946 milliliters

Formulation booklet available upon request!

* **Please note:** Please note: Organic polysilazanes are subject to U.S. reexport jurisdiction and are prohibited from export to any country identified in Country Groups D:1 (Armenia, Azerbaijan, Belarus, Burma, Cambodia, China (PRC), Georgia, Iraq, Kazakhstan, North Korea, Kirgizstan, Laos, Libya, Macau, Moldova, Mongolia, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, Vietnam), E:1 (Iran, North Korea, Sudan, Syria) or E:2 (Cuba). Countries listed above are designated in Supp. No.1 to part 740 of the EAR, version from September 15, 2022. Please note that only the latest country list on the BIS website is and will be binding (<https://www.bis.doc.gov/index.php/regulations/export-administration-regulations-ear>)

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