

INDUSTRIAL APPLICATIONS



*Mining, Primary Containment, Secondary Containment,
Industrial Flooring, Waterproofing, Reservoirs, Chutes and
Many More!*

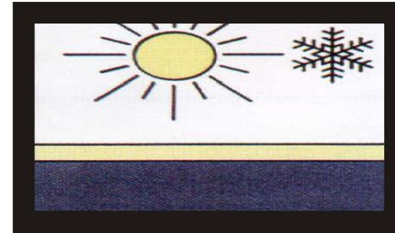
Hard wearing, chemical resistant coatings...

Polyurethane is essentially one of the most durable products ever invented. When mixed and sprayed, the two components of polyurethane (Iso and Resin) react chemically to form an elastomer which vigorously adheres to most surfaces. The end result is a pliable and seamless protective lining which is impervious to water, is extremely resistant to abrasion, cutting and gouging

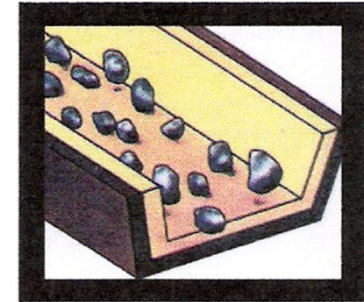
Our product is tolerant to a wide range of temperatures and climatic conditions, and has elastic capabilities of between 400 and 900 percent. It is resistant to corrosion causing chemicals: oil, fuel and solvents.

Gel time after spraying is ± 30 seconds, which not only makes vertical spraying possible, but even overhead spraying. Any contact with water after 30 seconds will have no effect on curing. Though cured to full strength within 24 hours, it is only a matter of 30 – 40 minutes until it is "workable", cutting downtime to a minimum.

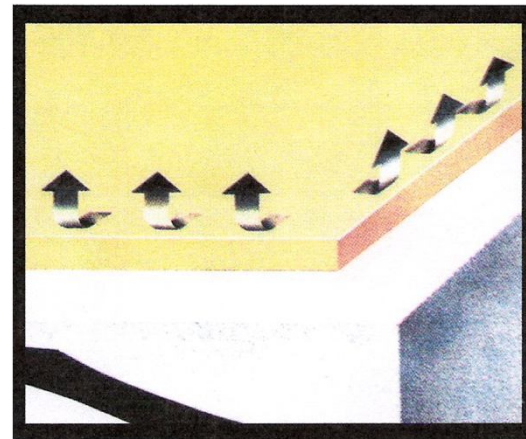
Our coatings can be sprayed from 1mm to several centimeters thick in just one operation.



THERMAL STABILITY
Polyurethane coatings are elastic at temperatures between approximately -40 and +110°C, which means they can be used in extreme climatic conditions. Coatings will withstand permanent temperatures of up to +80°C and short term peaks as high as 230°C

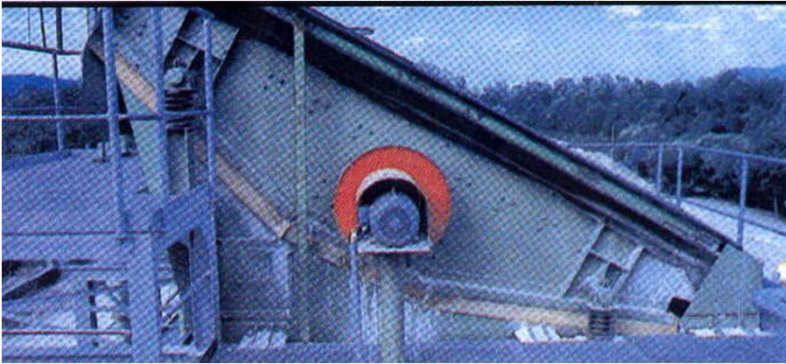


RESISTANCE TO ABRASION
Surfaces coated with Polyurethane coatings have very good resistance to wet abrasion. Even in the case of permanent exposure to abrasive materials on conveyors. Coatings give outstanding protection against wear and ensure a long service life. Abrasion losses are many times less than with conventional coatings.



ADHESION
Polyurethane coatings adhere very well to numerous different types of substrates, providing surface has been properly prepared. Steel, timber, aluminum, stainless steel, glass fibre, concrete and most others.

Industrial Machinery and Transportation Equipment, Material Chutes and Conveyor Belts, Mechanical Galvanising Tumblers, Slurry Tanks and Paddles...

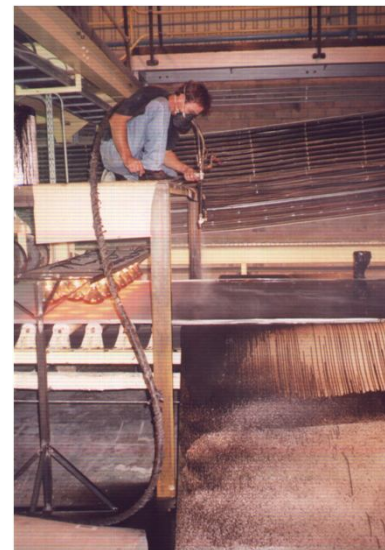


- Tack Free within seconds of application with modifiable cure times available
- Can be sprayed or cast to any desired thickness
- Versatility – formulations can be sprayed to almost any substrate including; steel, concrete, plastic, fiberglass, metals, wood and geotextile surfaces and many more.
- Increases structural integrity under repeated flexing. Excellent impact, abrasion and corrosion resistance, skid resistance, sound deadening and vibration absorption.
- Delivers superior corrosion protection and resistance against adverse chemicals such as petrol, diesel, crude oil, condensates, brine water, acids, hydroxides, solvents, peroxides, salts, lye and various other harsh chemicals.



ADVANTAGES:

- Long Life
- Corrosion Resistant
- Improved Environment
- Strong yet lightweight
- Excellent adhesion to any clean surface
- Seamless
- Quick application – up to 500m² per shift cutting downtime to a minimum
- Can be applied from 1mm to several centimeters thick in a single application.



INDUSTRY RESEARCH

Article in the Mining Weekly states that mines have:

“saved costs on down time, because the liners are lighter, and it is quicker and easier to insall them. The safety risk is also a lot lower and noise levels are reduced. The liners outlast steel and other liners, and this has a direct cost saving effect and also contributes to less down time, thus increasing plant productivity.”

“Unlike steel, polyurethane also has a ‘memory’ or ‘rebound’, which helps it to recover under pressure. It’s a ‘smart’ liner rather than just a ‘hard’ liner, bouncing back from knocks and stress for a long period”


It is also stated that the company has tested and compared both solutions for the past four years. While steel was once a cheap option, massive price increases make polyurethane up to 80% more economical.

Blast Mitigation Spray on Coating

Without


An explosion of 500 pounds of ammonium nitrate fuel oil creates significant damage.

Actual photos from Air Force Research Lab Testing




With

High-speed photograph of 3 foot wall deflection



Trailer is still intact and the "occupant" survived.



Blast Force Mitigation:

The military and defense industry in the US and other countries, have recognized polyurethane coatings for its high level of protection. In fact, these industrial coatings were statistically shown to outperform 27 other competitors in a batter of simulated tests conducted by federal agencies and the US Department of Defense. These tests were demonstrated on FOX News channel in the US and shown on SA's DSTV.

CONTAINMENT:

Tuff Guard's flexible, seamless and impervious linings offer an incredibly strong and easy to apply solution to provide long term cost effective protection to your company's assets.

Tuff Guard's propriety formulations are highly chemical resistant even at elevated temperatures.

From Chemical Containment to Potable Water Tuff Guard has a spray applied, instant curing solution to meet your needs.

Traditional concrete, fibreglass, paint like and sheet membrane products simply cannot match the flexibility and strength of a Tuff Guard Lining.

Being spray applied and instant curing Tuff Guard provides a seamless, impervious containment lining to any thickness in just one application. Pipe work, fittings and support structures are easily incorporated into the lining eliminating seams and overlap joints, guaranteeing the linings integrity.

Costly down time is significantly reduced compared to other lining methods saving you money.



INDUSTRIAL FLOORING

Applied in one application to any thickness and curing in minutes a Tuff Guard Lined Industrial Floor can significantly reduce costly down time.

- A seamless, impervious hard wearing system that is ideal in food preparation areas, cafaterias, workshop floors, wet areas and factory floors.
- Available in colors
- Environmentally friendly
- Suitable for vehicular traffic
- Highly impact resistant

Tuff Guard's superior sprayed on Industrial Floor linings, will not crack, warp or peel. They are highly resistant to impact, abrasion, oils, fuels and most chemicals.

Being Sprayed On they are seamless and application is rapid. The instant curing nature dramatically reduces down time normally associated with multiple coat flooring system.

A Tuff Guard Industrial floor lining will not need "re-painting" any time in the near future and will provide many years of maintenance free service.



PROBLEMS WITH:-

Roofing

Box Gutters

Decking

Tanks

Pools

Landings

Car Parks

Elevated Temperatures



Tuff Guard's range of superior protective linings extends to superior waterproofing linings. Spray applied and seamless a Tuff Guard waterproofing membrane totally eliminates potential weakness associated with other joined membrane products. Add to this the ability to bond to virtually any surface and the ability to transcend multiple substrates the possibilities are endless.

From Box Gutters and Roofing to Decking and Pools, from Primary Containment Tanks to Potable Water Storage, Tuff Guard has the solution...



FOR FURTHER INFORMATION PLEASE DO NOT
HESITATE TO CONTACT QUALITY URETHANES

on

STEPHAN - 083 556 9454

or

EMAIL US

- hotspot@hotmail.co.za

www.tuffguardgp.co.za