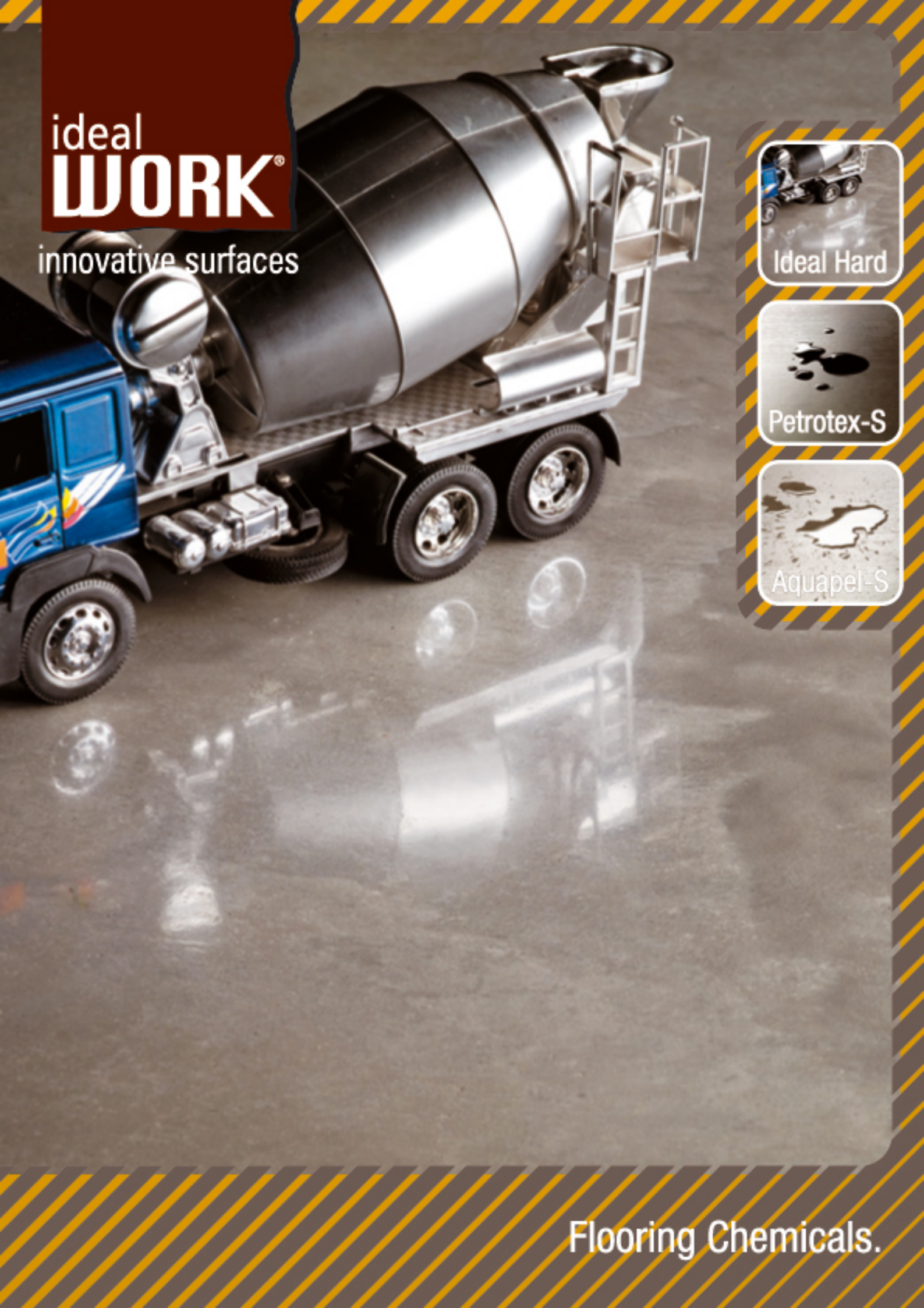
ideal
WORK®

innovative surfaces



Ideal Hard

Petrotex-S

Aquapel-S

Flooring Chemicals.

The protection of industrial floors

Millions of Euros are spent every year for unnecessary repairs to industrial floors. Time and money could be saved with specific focus on the protective treatment to suit each floors individual requirements.

Industrial floors are usually the last "structure" to be added to an industrial building and as a consequence, to save money and time, floors are treated with the wrong products or with products not compliant to the customers, real needs. This is a gross error that turns out to be very expensive in the long term. This is partly due to the confusion created by a market with more than 1.000 products that claim to offer the correct protection for all floors.

Understanding the real needs for each floor is the correct way to determine the right type of chemical enhancement.

Concrete floors should be protected from:
- Dust
- Abrasion due to high traffic
- Oil and grease stains
- Water, ice and thawing salts

 Dust  Tire marks	 Oil  Water	 Water  Salt  Ice
Abrasion resistance and dust protection to high traffic	Oil and water repellent	Salt resistance and water repellent

Ideal Work has developed an exclusive relationship with **L&M Costruction Chemical Inc.**, who is the World leader in protective surface treatment for concrete. After researching the European market, Ideal Work is proud to introduce 3 chemical systems to protect against the most common problems.

Ideal Hard
Hardening treatment, chemical hardener, dust-free guaranteed for 10 years.

Petrotex-S
Oil-proof and water-proof treatment.

Aquapel-S
Salt-proof and ice-proof treatment.

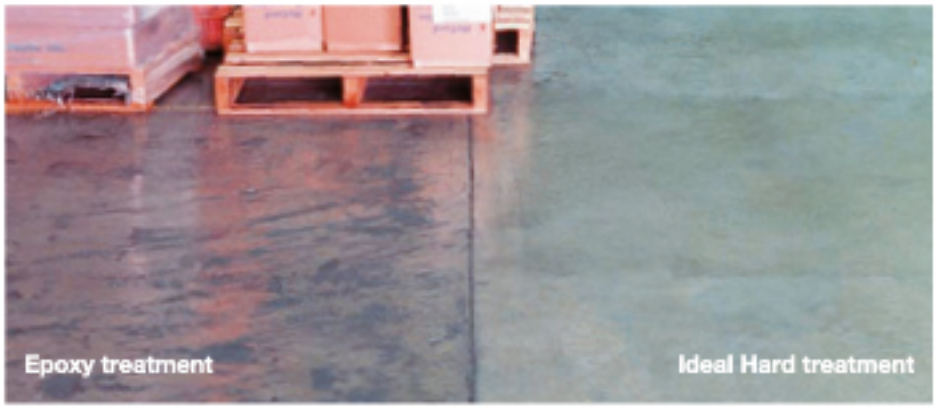
Ideal Hard

The best solution for your concrete floor

Ideal Hard is a proprietary, colourless chemical solution that increases impact and abrasion resistance of concrete floors subjected to pedestrian and vehicle traffic. **Ideal Hard** penetrates deep into the capillaries of the concrete surfaces and chemically densifies, seals, waterproofs and hardens to produce a high performance floor.

Ideal Hard floors last longer, cost less to maintain, are safe to use, and are guaranteed to resist dusting for years to come. It is VOC-compliant, odourless, environmentally safe and simple to apply. Through a chemical-ion exchange process, **Ideal Hard** develops internal bonds which densify the concrete substrate into a hardened, chemically-cured, homogeneous, concrete mass that resists abrasion, oil contamination and water. This chemical-ion exchange process begins immediately after treatment and continues through the initial six months following application.

Ideal Hard is safe to use. Its odourless formula allows its use in employee-occupied areas without concern. It can be applied in the close proximity of foodstuffs without fear of contamination. **Ideal Hard** is also safe to own stopping dust particle for becoming airborne.



Ideal Hard treated floors provide a significant savings in maintenance costs over conventional acrylic, epoxy and urethane sealers. **Ideal Hard** will not yellow, discolour, chip, peel or show unsightly wear patterns with use. **Ideal Hard** will not tire mark. In fact, the more an **Ideal Hard** floor is used, the better it generally looks.

The need for, and benefits of, using a chemical hardener/densifier

Additional impact and abrasion resistance can be achieved by treating the hard-troweled surface with a chemical hardener/densifier like **Ideal Hard**.

Ideal Hard increases impact and abrasion resistance of +127% compared to un-treated concrete surface.

Hydrated cement paste contains microscopic particles of calcium hydroxide, which are by-products of the hydration process. Calcium hydroxide is a comparatively soft material which can be eroded away very quickly by a modest amount of abrasion, leaving microscopic pits (micro-pits) in the surface of the concrete. The edges of these micro-pits are very susceptible to abrasion, in much the same way as a hole in the road. The hole may start small but soon becomes larger as its edges wear away.

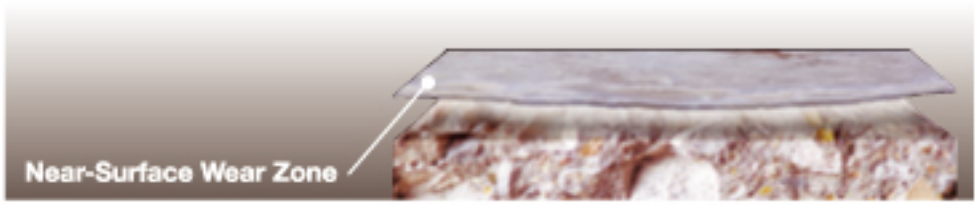
Micropitting: causes and cures

Micro-pitting without Ideal Hard	Densified with Ideal Hard
	
Unprotected concrete floors wear fast. **Without Ideal Hard, concrete floors are porous and "soft".** **Surface micropitting is a problem in high traffic and wear areas.**	**Densified floors last longer.** **With Ideal Hard, concrete floors are no longer "soft".** **Densified cement paste wears like the aggregate it surrounds, adding years of useful life to your concrete floors.**

Ideal Hard converts the soft calcium hydroxide particles into very hard and dense calcium silicate hydrate. This is the same crystalline structure that is formed when cement hydrates. When calcium hydroxide is transformed into calcium silicate hydrate, the cement paste becomes more uniformly hard. Upon exposure to wear the concrete surface no longer micropits but polishes to a noticeable sheen. By using Ideal Hard to densify the cement paste more calcium silicate hydrate is produced, giving the cement paste greater aggregate holding power.

Near-surface wear zone

The **Near-Surface Wear Zone** is the point of maximum wear, aprox 1/8th of an inch thick at the very top of the concrete. Made of a high percentage of cement paste, this critical area is most vulnerable to wear and the microscopic voids known as **micropits**.



Polished Concrete

Polished Concrete is fast becoming one of the flooring industries most sought after finishes. Diamond polishing can produce highly functional and very beautiful floors with long term benefits.
Environmentally Friendly or Green, are two terms used for Polished Concrete. Almost any old concrete floor can be renovated with chemicals and polishing, bringing new life to old floors. Light reflection also save energy and maintenance is minimal, resulting in a low cost, long term flooring solution.
Colour can be added using Ideal Work Reactive Stains or Water Based Dyes that penetrate deep into the concrete during the polishing process.

Benefits of using Ideal hard

Immediate benefits	Future benefits
It helps concrete to mature in the proper way	It increases impact and abrasion resistance
It reduces micro-pits	It reduces oil and water penetration
Prevents the surface getting dirty during the next working phases.	Dust protection to high traffic
Floors are ready to use after the application of Ideal Hard	Floors are easy to clean
	Ideal Hard floors will polish over time with regular easy maintenance

Ideal Hard is recommended for use in areas subjected to medium-to-heavy fork lift and tow motor traffic: warehouses, distribution centres, manufacturing plants, textile mills, bottling plants, coolers and freezers, food processing plants, canning factories, breweries, bakeries, meat and poultry processing plants, service garages, grocery stores, discount retail stores, hub transfer facilities.

Other uses include concrete floors subjected to heavy pedestrian traffic, such as: civic centres, sports arenas, stadiums, hospitals, airports, museums, schools and grocery stores; as well as areas subjected to mild chemical attack: parking decks, silage storage silos, sewage treatment plants, dairies, fish processing plants, refineries and water treatment plants.

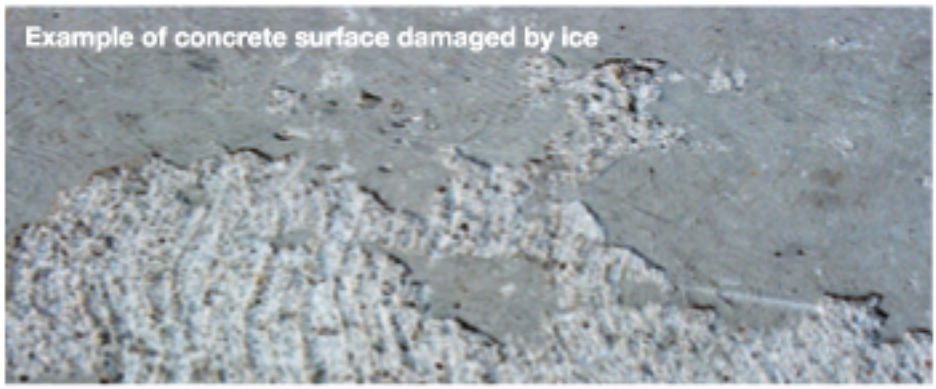
References:

Boeing	Miami and San FranciscoAirports
Ikea	DHL, Roadway Express
Caterpillar	K-Mart
Chrysler	Levi's
Ford	Wrangler Jeans
Mercedes	HP
Coca Cola	Intel
Pepsi-Cola	Kodak
Fleming Foods	Xerox de Brasil
Delta Airlines	Esselunga
Federal Express	Golden Lady

Aquapel-S

Salt resistant and water repellent

Aquapel-S is a new generation, 100% reactive, solvent based silicon dioxide polycondensated sealer. **Aquapel-S** penetrates the surface and chemically bonds directly with the substrate which results in a surface that is highly resistant to both moisture and salt.


Example of concrete surface damaged by ice

Aquapel-S' unique formulation offers permanent, invisible, non-yellowing protection. **Aquapel-S**' accelerated chemical reaction with the natural minerals in the substrate produces a stable and predictable hydrophobic surface within seven to ten days after application.

Aquapel-S is useful for increased long-term protection on porous concrete, elevated structural concrete slabs, and on normal concrete with severe exposure to salt and water.

Basic Use: **Aquapel-S** effectively protects buildings, parking decks, monuments, and virtually all concrete surfaces. It offers positive salt screening in northern, as well as southern climates. **Aquapel-S**' formula minimizes corrosion of reinforcing steel and protects concrete from the damaging effects of deicer chemicals, road salts, and other chemicals.

Aquapel-S' successful field and lab performance make it ideal for walkways, stairs, parking decks, garages, driveways, dams, piers, bus and truck terminals, precast and pre-stress concrete. Other uses include architectural concrete, Stamped concrete and brick pavers, and exposed aggregate surfaces (Sassoitalia).

Features and benefits

- Effectively stops moisture and salt migration
- Deeply penetrates substrate for long-term hydrophobic protection
- Ready-to-use formulation
- Quick installation

Technical data	
NCHRP 244 series II, water absorption reduction, % min.	**Min. 85 %**
NCHRP 244 series II, chloride intrusion reduction, % min.	**Min. 90 %**
Depth of penetration (Depending upon substrate porosity)	**2-4 mm.**
ASTM C 672, scaling test	**No scaling**

Petrotex-S

Oil and water repellent

Petrotex-S is a solvent based Acryl-siloxane sealer, for concrete protection from oil and water.
Petrotex-S is recommended for industrial floor applications where oil protection is request.

Features and benefits

Provides excellent water repellency to reduce cracking, spalling, freeze/thaw damage, chemical degradation, biological growth, efflorescence, and dirt pickup, thereby lengthening substrate life and reducing maintenance costs.

- Provides good oil repellency resisting staining for improved aesthetics.
- Makes oil and grease easier to remove from treated surfaces decreasing maintenance requirements.
- Provides excellent beading for improved aesthetics.
- Formulated to minimize darkening effects thus not greatly changing substrate appearances.
- Good stability on highly alkaline surfaces for long term durability.
- Physically and chemically bonds to substrates making cleaning easier, thereby reducing maintenance costs.
- Coatings are UV stable and resistant to biological degradation for longer service life leading to less cost for repetitive applications.
- Coatings are vapor permeable to resist cracking, peeling and blistering, and allowing moisture vapor release. This lengthens coating and substrate lives.

Delivered by

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