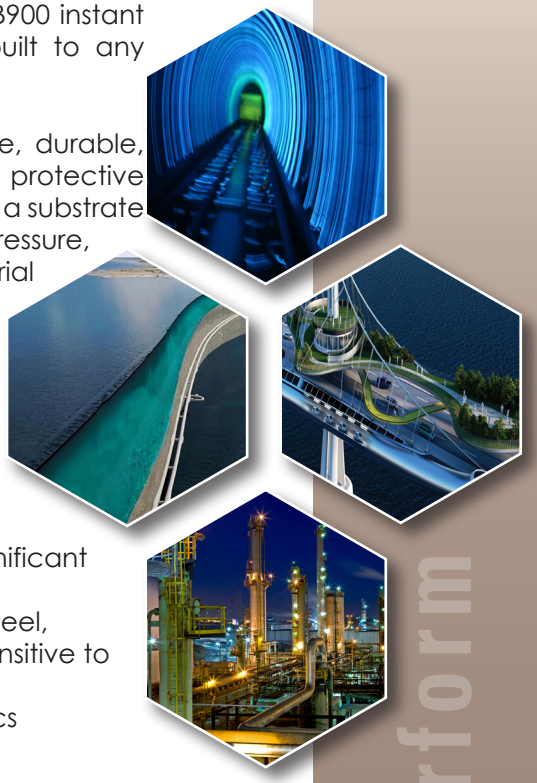
# DryTex **HB900**

## Pure Polyurea Waterproof Coating System

DryTex HB900 is a spray applied, fast set, premium, 2-component 100% solids elastomeric coating derived from a reaction of an Isocyanate Pre-Polymer and an Amine terminated resin blend. This general purpose Pure Polyurea has been especially designed to protect and coat most all surfaces assuring enduring pore density. Drytex HB900 instant curing seamless and flexible waterproofing membrane can be built to any thickness in one application .



The product reacts within seconds and once cured, leaves flexible, durable, tough trafficable surface. It is extremely effective when used as a protective coating whether applied over concrete, steel, any other surface or as a substrate on Geotextile fabric. The material to be applied utilizing high pressure, heated plural component spray proportioning equipment. This material is designed which enable to apply by cold spray low pressure selective machines for specific applications according to the project requirements

## Features

- PURE Polyurea utilization even under extreme climatically conditions
- Fast reactivity and cure times from 5 seconds up
- Fast return to service time > long life-cycle > maintenance free > significant savings
- Anti corrosive & waterproofing ,excellent adhesion on concrete, steel, aluminum, plastics, fibers, wood, foam etc. Hydrolysis firm > non sensitive to humidity
- Resistant to most aggressive chemicals, solvents, acids and caustics
- High impact & abrasion resistance, maintains flexibility
- Seamless and joint-less coating .
- Solid, high application thickness possible and allows accurate reproduction of surface detail
- High elongation at break . Very good tensile and structural strength
- Excellent UV resistant
- VOC-free, no solvents
- Heavy duty trafficable and High abrasion resistant
- Little or no odor without the use of catalysts excellent muffling of noises
- Chlorine and saltwater resistant
- Excellent thermal stability and resistant to hot asphalt
- Excellent chemical resistant

**Application field**

Industrial , Infrastructure ,manufacturing facilities and building construction industries. Bridge and bridge decks , tunnel , industrial and potable water storage, heavy load and high traffic areas ,water and wastewater treatment, containment areas, landfill, manholes, sewer-lining Refineries, pipelines, gas-stations, car-wash pools, reservoirs, digester-towers, active carbon tanks, roofs, park decks, garages, ramps airports, shipbuilding, marine, mining wind energy plants (on-off-shore), biogas reactors, cooling towers, platforms, vibrating stoker, edge guard, belt conveyors, leisure parks, biotope, wet areas, foundations/basement, playgrounds, slip-hazard areas, molds, furniture industry., food industry, manufacturing plants and refineries

engineered to perform

organiX BUILDING SYSTEM

# DryTex HB900 Properties

| Properties: | Data | Tests |
|---|---|---|
| Mix Ratio | 1:1 (volume) | |
| Theoretical coverage | 1m² = 1L = 1mm | |
| Recommended thickness | minimum 1.5 mm | |
| Maximum thickness | Unlimited | |
| Recoat time * | 0 – 12 hr. | |
| Working time * (Pot life) | 5-15 sec | |
| Tack free * | 15-30 sec | |
| Cure to dry service * | after 30-60 min | |
| Ultimate cure * | 24 hrs | |
| Application Temperature (substrate) | +5°C to +50°C | |
| Service temperature (Polyurea) | -40°C to 150°C | |
| Chemical base (A) Chemical base (B) | Isocyanate Amine | |
| Solids | 100% | ASTM D 2697 |
| Solvent (VOC) | 0% | ASTM D 1259 |
| Viscosity (A)* Viscosity (B)* | 700 mPas ~1200mPas | ASTM D 4878 |
| Density | 1.01 g/cm³ | ASTM D 792 |
| Shore Hardness (A) Shore Hardness (D) | 90 Sh-A ~ 57 Sh-D ASTM D-2240 | |
| Thermal stability | -50°C to +150°C | |
| Abrasion resistance (CS 17,5g/1000cycles) | < 9mg | ASTM D 4060 |
| Tensile strength | 23 MPa (N/mm2) | ASTM D 412 |
| Tear strength | 60 Mpa (N/mm2) | ASTM 624-C |
| Peel strength | 6 Mpa (N/mm2) | |
| Crack bridge | 3mm | |
| Elongation | 500 % | ASTM 412 |
| Adhesion to concrete | ≥ 3 Mpa | |
| Change in volume | < 1% | |
| Fire rating -DIN4102 Part 1 | B2 | |
| Sound adsorption at 2mm | < 10dB (A) | |

Variation of 10% applicable

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### Surface preparation

**Mechanical preparation:** In many cases surfaces such as concrete, metal or existing previous coatings are contaminated. These areas need to be cleaned mechanically. In general all surfaces must be dry, clean and free of oil, grease, dust and other contaminants. Various methods like grinding, grit blasting or blast-cleaning with sand or water produce a rough, even surface in addition to cleaning it thoroughly. These methods improve mechanical adhesion substantially. Chemical preparation: Priming is always recommended after preparation of the surface area. Primers secure pore density, level the surface, take care of voids and subsequently improve adhesion properties. The amount of primer required depends on the absorbency of the substrate and may differ from 0.1L/m² (metal) to 0.3L/m² (concrete). The temperature of the area to be primed should not be less than +5°C (41°F). To avoid condensation it has to be watched in particular at high temperatures and high humidity that the surface temperature during the application and the curing process is at minimum 3°C (37-38°F) above the dew-point. Apply primer manually with a brush or core-roller. Alternatively airless-application is an option. Before continuing with Top Coat the surface has to be tack free. The timeframe to observe depends on whether or not a 1-Part or a 2- Part Primer system is used. (Please take note of the technical data sheets of the suitable Primer products from OBS )

**Application**
General considerations: Do not spray onto wet surfaces. Receptacles are to be opened just prior to work and both components to be protected from humidity by means of drying agents or nitrogen. Special attention must be given to surface temperature of the substrate of app. +5°C to +50°C (41°F to 125°F), humidity of max. 80% - 85% and the dew-point. In particular at low temperatures and/or high humidity, the temperature of the substrate during application and drying process has to be at least 3°C (37-38°F) over and above the dew-point-temperature.

DryTex HB900 can be applied in multiple layers to achieve the desired thickness. It should be applied in a cross-directional method, also for vertical or overhead applications. Structured or restructured surfaces can be achieved using special spray techniques. Beware of overspray. Protect surrounding areas with covers, tents or nets. Mask-tapes should be removed promptly. Dark colors don't fade as quickly as light
ones. The subsequent use of an aliphatic Polyurea as a Top Coat will guarantee color stability.

**Mixing:** The mixing ratio of 1:1 (volume) for the two components has to be observed at all time. Never dilute DryTex HB900. Isocyanate-side (A) needs little or no mixing, but has to be protected from humidity and direct sun (solar) irradiation. The Polyamine-side (B) requires premixing for about 30 min. until a homogenous, uni-coloured compound, that also ensures complete suspension of filling agents is achieved. It is absolutely necessary that the mixing process also takes place constantly during the application. Utilize a professional adjustable stirring device and mix with approximately 300-400rpm.
Do not allow air to be incorporated into the product.

**Equipment:** DryTex HB900 should only be applied using a plural component, heated, high
pressure 1:1 spray mixing equipment such as those manufactured or equivalent. Adequate pressure of app. 2.140psi (150bar) and a flow rate of app. 9-15kg/min are required. Both components of the material are to be preheated if necessary to reach a working temperature of 80°C (176° F) in order to achieve optimal cross-linking. The temperature needs to be maintained constantly up to the spray gun. Under these circumstances areas of up to 1.000m² can be covered daily. The cleaning of the equipment has to take place immediately after finishing the job. Use organic solvents or equivalent to remove residues of the material. Once the material has hardened it can only be removed mechanically.

Storage: DryTex HB900 has a shelf life of six (6) months from date of manufacture in original, factory sealed containers. Avoid exposure to direct sunlight and freezing temperatures for an extended period of time. Keep receptacles at room temperature 18°C-23°C (65°F- 73°F) and place on wooden pallets to avoid direct contact to ground. Rotate drums Side-A and Side-B regularly if stored for longer periods.

**Packaging**
Set: 2x200L drums

**Storage and Safety :** DryTex HB900 when stored on pallets in dry, cool area from moisture and direct sunlight, has a shelf life of 12 months.



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