BCI BUILDING CHEMISTRY INDUSTRY

BC AR POLYOL (Food Grade)

Product Description:-

BC AR POLYOL (FG) is an instant curing, spray applied, seamless, and flexible protective membrane that exhibits excellent impact and tear strength. It will not crack or peel even under the harshest conditions and requires no maintenance to maintain its integrity and physical features.

FEATURES:

- Potable Water Approved according to BS 6920 and WRAS Certified.
- Spray applied Seamless application to any thickness in one application.
- Fast reactivity and tack free times - from 10 seconds.
- Fast return to service time – within 48 hours.
- Long life-cycle - significant whole of life cycle savings
- Excellent adhesion on concrete, steel, aluminum, fiberglass, wood, foam etc.
- No sensitivity to humidity or moisture during the spraying and curing processes.
- High impact and abrasion resistance,
- Maintains flexibility and does not become brittle over a wide temperature range.
- Very good tensile and structural strength - High elongation at break.
- 100 % solids, VOC-free, no solvents.
- Does not contain catalysts.
- UV, chlorine and saltwater resistant.
- Suitable for exposed applications under water
- Can be applied across multiple substrates in the same application process
- Remains flexible under a wide range of climatic conditions

TYPICAL USES:

- Potable water reservoirs, storage tanks, canals and via-ducts.
- Rainwater storage tanks.
- Fish breeding tanks.
- De-salination plants.
- Water bottling and cleaning plants

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PRODUCT INFORMATION:

PROCESSING PROPERTIES	DATA
Mixing ratio of Comp. A to Comp. B	1 : 1 by volume
Material consumption [kg/m²/1mm]	Approx. 1 - 1.2
Dry film thickness range [mm] For project specific DFT recommendations consult with manufacturer.	Steel Minimum: 1 Maximum: indefiniteConcrete Minimum: 2 Maximum: indefinite
Tack Free-Time at 20°C [sec.]	10 - 20
Over coat cycle [h]	0 – 12 (without any further pre-treatment)
Curing/loading after	Walkable: 5 mins Mechanical: 1 hr Chemical: 12 hrs
Temperature range for application (ambient) [°C]	-10 - +50
Temperature range for application (substrate) [°C]	-10 - +50
Material Temperature (Preconditioning) [°C]	30 - 40
Material Temperature (Spraying) [°C]	65 - 75
Maximal relative air humidity for application [%]	98
Pay attention to the dew point limit	Substrate to be 3C greater than Dew point.

PHYSICAL PROPERTIES	DATA		
Chemical Base	-	100% Pure Polyurea technology	
VOC-content	DIN EN ISO 11890-1 / ASTM D-1259	0%	
Solids content	DIN EN 827 / ASTM D-2697	100%	
Viscosity [mPa*s] @ 25° C	DIN EN ISO 2884-2 / ASTM D-4878	Comp. A: 500 – 700	Comp B: 350 – 700
Density [g/cm³] @ 20° C	DIN EN ISO 2811-2 / ASTM D-1217	Comp. A: 1,11 ± 0,02	Comp. B: 0,98 ± 0,02
Density [g/cm³]	EN ISO 1183 / ASTM D-792	1,02 ± 0,02	
Tensile strength [MPa]	ISO 37-2005 / ASTM D-638	≥ 20	
Modul [MPa]	IISO 37-2005 / ASTM D-638	100% Elongation: ≥ 10	300% Elongation: ≥ 15

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SAFETY AND HANDLING:

- All applicators of BC AR POLYOL (FG) should be trained and approved by the manufacturer.
- Spray applicators should wear appropriate PPE including approved breathing equipment, eye wear, Nylex or similar light weight spray suit and appropriate covered footwear.
- Avoid breathing in vapours during spraying or when handling chemicals.
- Avoid eye and skin contact.
- Store chemical drums in a cool dry environment. Avoid storing chemicals for long periods in direct sunlight.
- Do not store chemicals next to food stuffs.
- Ensure chemical drums are kept tightly sealed and avoid ingress of air and moisture.

APPLICATION NOTES:

- BC AR POLYOL (FG) can only be applied using high pressure heated plural component spray equipment by trained and approved applicators.
- In ambient temperatures below 15°C chemical drums should be pre-heated using band heaters to 40–30°C.
- The B-side component should be thoroughly power stirred prior to the commencement of spraying and periodically during the spraying process to ensure there is no settling out of the B-side chemical components.
- The Pigment is always mixed into the B-side using a power stirrer.
- Both the A-side and B-side drums should be fitted with desiccant dryers.
- Compressed air supply should be supplied via an air dryer.
- Primary heaters should be set at between 75-65°C. Adjustments can be made on-site based on environmental conditions, mixing module size and application circumstances.
- Hose heaters should be set at 70C. Adjustments can be made on-site based on environmental conditions, mixing module size and application circumstances.

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