

Closure Sealant 10B FR. Product Characteristics.

Product Characteristics Comments

Dexbond Method for Detection and Repairing Leaking
30 Series Copper Resin type 30A,31A,32B, Heat Shrinkable Ported Base Series 30 Series, 30D, 31B, 31C, 32K and 31M, &31J
Maintenance Ready Access Closures
New build Neptune Closure family
Sealing Optical Fibre cables in OTIAN - Heat Shrinkable Ported Base Closures.

Dexbond method overview	Dexbond is a made for purpose two-part polyurethane sealant for sealing and repairing Closures or Cables as defined in Section 1.
Dexbond Cartridge	Comprises of In-line cartridge to fit a standard applicator gun. Hermetically sealed cartridge, unique presentation of two-part sealant compound.
Dexbond Kit	Customised kits to suit every application.
Dexbond Product Features	In-line cartridge that fits a standard applicator gun. Cartridge is hermetically sealed, robust and leak proof and no permeation of product through cartridge. No exposure of chemical constituents, skin contact or inhalation. Mixing takes place in mixing nozzle (no manual mixing). This ensures consistent product every time. No wastage as cartridge can be re-used simply by removing the nozzle and re-securing the sealing plug and cap.
Application of Dexbond	Simply clean cables and base of old sealant with wet/dry wipe No abrasion of cable required. However for best adhesion results, we would recommend the cable sheaths be abraided. Remove sealing plug & cap of cartridge and insert mixing nozzle. Attach cartridge to gun and gently pull trigger to dispense sealant. Important to follow the installation instructions for each application. Refer to installation instruction for each application. Sealing dry cables within Cross-Connection cabinets to create air/water block. Repairing leaking 30 series resin closures. Repairing leaking 30 series heat shrink ported base closures. Repairing 31M and 31J maintenance closures. New Build for Copper and Optical fibre Closures cable installs.
Dexbond Delivery System	The performance of the delivery mechanism is impressive in convenience and safety, especially in comparison to standard two can mechanism, i.e., 1. Mixing is thorough/consistent 2. Nozzle directs Dexbond to all parts of the closure 3. No operator contact – skin/inhalation 4. Greater safety characteristics and operator compliance 5. Easier disposal 6. No wastage – use what is required and re-seal 7. No spillage or over filling of closure



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Chemical/Performance	Overview
Two-part polyurethane sealant (Greater safety and reliability of the performance of product in the field)	A specially designed in-line cartridge and a mixing nozzle allow the sealants to be mixed safely to minimise any potential risk to the jointer, whilst providing an effective seal.
Compliance To provide operators with an easy to apply sealant covering multiple applications.	Dexbond formulation ensures greater "flowability" of product to comply with telecom applications with low operator effort to aid compliance of installation. Dexbond shows minimal foaming in the presence of moisture or water droplets.
Bonding strength Measured in terms of a) Axial Tensile Test b) Flexure c) Torsion d) Static Bend	To provide strong sealing characteristics to both cable and base unit of closures. Practical tests ensure that the key strength to polycarbonate inserts in 30 Series ensure sufficient bond strength to satisfy the life of 25 years. Axial pull test, Torsion, Static Bend and Flexure test ensures Dexbond is "fit for purpose" sealant and prevents water ingress.
Variable viscosity Cartridge Mixing nozzle Cured viscosity Viscosity changes as it is dispensed to allow product to flow, mix and set/cure.	The variable viscosity of the Dexbond in (a) cartridge, (b) nozzle and (c) applied sealant are formulated to facilitate ease of use and efficacy of product. This is a unique feature of Dexbond™, where the viscosity of the product changes in all 3 steps. Even at -18° C the viscosity of the sealant can be dispensed to provide an excellent solution for leaking closures.
Tack Free The important rate is tack free rate, the rate at which the product thickens enough to enable pressure test.	When tested as described in BS 2782, method 835C, at operating temperatures -18°to + 50°C, the gel times below were obtained:- -18°C time 15 - 17 minutes 0°C time 10 - 12 minutes 20°C time 2.5 - 3.0 minutes 50°C time 1.0 - 2.0 minutes
Cure Rate Cure rate is only slightly variable, depending on temperature. Colder temperatures below 5°C delays tack free time by minutes only. The product is consistent in all outside temperature ranges experienced in the field.	
Dexbond Product Characteristics in:	Allows flow ability and filling all voids within the closure.
Variable Viscosity	
Curing Temperature and Tack free time explanation	Maximum curing temperatures do not degrade/damage cable sheet or conductors. Lower curing temperatures of Dexbond facilitate its use on all BT cable types without deleterious effects. Major advance over current resins. Maximum curing temperatures is dependant on volume of applied sealant. Will not exceed +87°C.
Flexibility of Dexbond (Skin of Dexbond)	Once Dexbond is applied and as it cures it forms a "firm robust skin" to provide protection and flexibility to allow cables to be moved without separating from Dexbond. This provides greater sealing properties. Ref. LN450 – Axial/Flexure/Torsion/Static Bend
Long term Durability of Sealant	Temperature Cycling in Water – Ref. LN450, ensures product performs to long-term environmental stress, which Dexbond could be exposed to. Dexbond™passes this test. Ref. List of all tests undertaken.
Exposure to heat - Flash Point	Dexbond can withstand greater than 165 degrees C temperature exposure.
Odour	There are no fumes or significant odours omitted by polymers. No organoleptic reaction, even when used in a relatively enclosed area.
Density	1.1 measured as kg/L

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Stability	Cured Dexbond polymer is stable. No ingredients within formulation unlike some other epoxy resins, which allow leaching or breakdown of chemical bond and sealing properties of sealant, over time. Contains no heavy metal catalysts, non-reactive material once cured is very stable. Dexbond formulation guarantees a strong robust material over the life of the product.
Expansion Rate	Under normal conditions the sealant expands by approx 4 -12%, to allow greater adhesion and bond strength, unique characteristic of Dexbond. The expanded sealant forms a greater "key line" strength to both cable and closure. This ensures all voids are filled to prevent water ingress.
Flammability FR Grade	FR Sealant will not support combustion. Sealant will char slightly in appearance when subjected to a flame. Sealant will produce droplets when a maintained heat source is maintained for extended periods of time.
Disposal	Spent cartridges are disposed of in landfill – no special disposal considerations. Out of date material can be disposed of by removing stopper, inserting in water until product hardens. The product is then rendered non- and can be disposed of with no special disposal considerations.
Shelf Life	Unique feature of Dexbond allows a shelf life of 24 months. Hermetically sealed cartridge.
Storage	Store in dry area. Scope of temperature range -20°C + 60°C.
Usage	In hot conditions allow for a slightly increased expansions. This however, does not affect the performance of the product.
Water Solubility	Insoluble
Appearance	Dexbond Red Thixotropic material. FR grade. Dexbond Blue Non FR grade. Dexblock Red.
Adhesion	Specially formulated to bond to polycarbonate base material in closure and seal around polyethylene cables.
Precautions	The COSHH Report and history of usage of the product demonstrate that there is no significant organoleptic detection or reaction to users. Always follow instructions on label as a precaution.
Safety	The safety recommendations in MSDS really more relevance to point of manufacture where large quantities of the ingredients of the product are handled. In reality, with the volume of product used and its packaging format (in a cartridge), the product offers significant safety benefits over other products requiring manual mixing.

