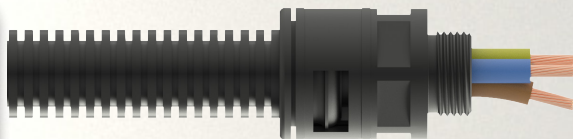




Remora Electrical

Things to know Non-Metallic Conduit

Technical Breakdown



SoliFlex® non-metallic conduit is a flexible cable protection system made from durable, halogen-free polypropylene polymers. It features a ribbed inner and outer surface, giving it excellent flexibility and crush resistance while keeping the weight to minimum. The double corrugated structure allows it to flex easily into many installations, reducing the need for fittings and joints in tight installations.

Being non-metallic, SoliFlex® 'NRF' is corrosion-proof and suitable for use in damp conditions, in environments where chemicals may be present or where the installation needs to be buried. Conditions where metallic conduit may deteriorate. It's typically used for low-voltage wiring in industrial, commercial and utility applications such as HVAC and CCTV. The ribbed interior means cable pulling requires care, use smooth-sheathed cables and appropriate lubricants to minimize friction.

The SoliFlex® fittings' range complements the conduit with push-fit connections, offering a quicker and easier installation compared to calm style fittings. These fittings maintain secure strain relief and mechanical strength, allowing installers to complete conduit runs faster without compromising reliability.

How to Choose - When selecting SoliFlex® conduit, match the conduit's internal diameter to your cable size and required cable capacity level. Consider the environment moisture, UV, chemicals or vibration before choosing the right material grade. For outdoor or high temperature conditions, use UV-stabilized or heat-resistant types. In locations subject to physical impact, select a heavy-duty wall thickness or add mechanical protection. Always ensure fittings and glands are compatible with the conduit profile and locking type. Lastly, review datasheet specifications for bend radius, tensile limits, and operating temperature to ensure reliable, long-term performance.

Best Practices - Plan the routing before installation, allowing gentle curves instead of sharp bends. Adhere to the manufacturer's minimum bend radius to avoid crushing or restricting the conduit. Support at regular intervals—typically every 0.5 to 1 m—depending on diameter and installation environment. When pulling cables, apply a suitable cable lubricant to reduce friction against the ribbed inner wall. Use appropriate glands and locknuts to seal entries and prevent cable strain. Keep cable capacity levels below 50% for easy pulling and future cable additions. Avoid stretching or twisting the conduit during fitting. In exposed or outdoor areas, choose UV-rated types or provide shielding. Ensure conduit runs are clearly labelled for maintenance and inspection. Proper installation ensures long-term electrical safety and mechanical integrity.

Q Can SoliFlex® non-metallic conduit be used outdoors or underground?

A Yes, when the correct grade is used. Black 'NRF' conduit has improved UV stabilisation suitable for outdoor use, while heavy duty or sealed types are ideal for underground or damp conditions. Always ensure all joints are above ground, watertight and are mechanically supported.

Q Do push-fit fittings make installation easier?

A Yes. Push-fit SoliFlex® fittings allow fast, secure connections without tools, speeding installation while maintaining mechanical integrity. They are especially useful in complex or tight runs.

Q Does the ribbed inner wall make cable pulling harder?

A Slightly. The ribbing increases friction compared to smooth-bore conduit, so use smooth sheathed cables and approved pulling lubricants for easier installation.