



Air Blown Fiber



in a
CPR World

Air blown fiber (ABF) has long been a flexible alternative to traditional structured cabling, allowing organizations to maximize future network moves, adds and changes while minimizing disruption to their facility.

Developed in 1982, air blown fiber ensures the appropriate fiber is installed at the right time, reducing expenditure and providing an environmentally-friendly fiber solution — all while meeting stringent building codes and standards. As installers and organizations across Europe come to terms with the Construction Products Regulations (CPR), **it's important to recognize none of the benefits of air blown fiber have changed.**

However, there is broad confusion over the actual requirements of CPR when it comes to air blown fiber products. Blown fiber microducts are considered part of the cable management system (CMS) within a building and are not subject to CPR requirements. Furthermore, In the Fibreoptic Industry Association paper “Reaction to Fire Performance of Cabling Inside Buildings”, the BSI Technical Committee has clearly delineated that **air blown fiber microducts do not fall within the purview of the CPR and are therefore exempt.** However, there have been some instances of manufacturers applying EuroClass ratings to their microducts, resulting in some users incorrectly believing that air blown fiber microducts actually fall within the scope of CPR.

Exceptions and CPR

Every microduct infrastructure requires an appropriate cable or fiber and while many cabling products fall within the scope of the CPR, there are notable exceptions. One of them relates to blown optical fibers. Optical fibers and optical fiber bundles that are installed by blowing or pulling into tubes or microducts, are not subject to CPR “if they do not have a structure to protect them against mechanical stresses and other environmental influences within the tube,” according to the Fibreoptic Industry Association. For this reason, blown optical fibers — in addition to conduit, trunking, ducting, and tray — do not fall under the scope of the CPR and cannot legally be subject to the marking, labelling, DoP, and designation in accordance with EN 50575. In fact, it is illegal to apply a CE designation to any product that is not subject to a harmonized standard under the CPR or another EU regulation — regardless of whether tests have been carried out which indicate adequate performance.



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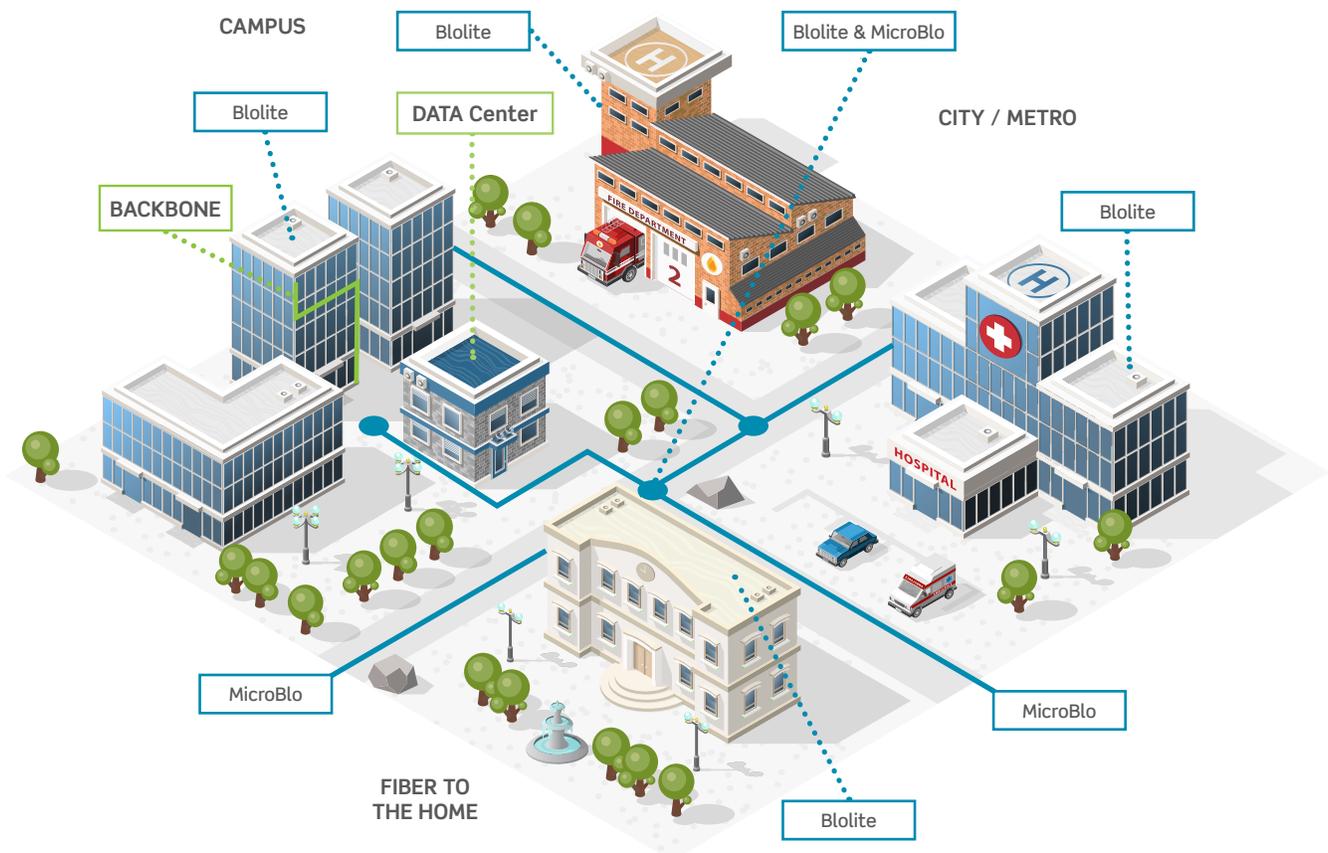
Win for User and Planet

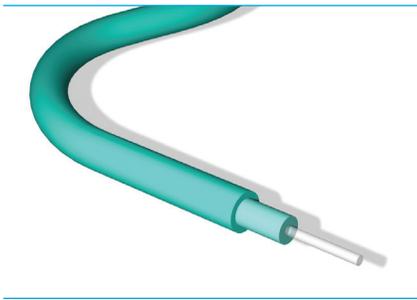
Despite the confusion about regulation exemptions, air blown fiber has a plethora of benefits, especially as the products have continued to be refined over the years. First developed by British Telecom (BT), air blown fiber's intent was, and still is, to **easily accommodate future moves, adds, and changes** with minimal disruption. In the past, industry practice had been to install "dark fiber" to plan for future bandwidth demands. However, this strategy continues to carry risk, as unterminated and untested fibers are not always fit for purpose when the time comes to use them. As such, air blown fiber eliminates this risk by preinstalling a microduct route and then blowing in (and paying for) the fiber element only when it is required.

Air blown fiber systems are engineered to **increase design flexibility, enhance longevity, and actually reduce costs** in the long term, compared with conventional optical fiber cables. Additionally, air blown fiber is a much more sustainable solution. It uses less material than a conventional optical fiber cable and it takes less energy to make. Plus, as mentioned above, air blown fiber systems consist of a network of protected microducts installed between locations, with fiber blown into the microducts only as needed. In this way, the decision to purchase fiber can be postponed until it's determined that additional fiber is actually needed. Not only that but if it's decided to upgrade an ABF network at a future date, this can be achieved with little effort or disruption, creating a win for the environment and saving money for the end user.

Leviton Air Blown Fiber Systems

Leviton air blown fiber systems offer solutions for internal and external applications with the market-leading Blolite™ and MicroBlo™ product sets respectively. They are commonly installed in expansive campus environments where changing up the cabling system would be unwanted and disruptive such as hospitals, education facilities, airports, and military bases.



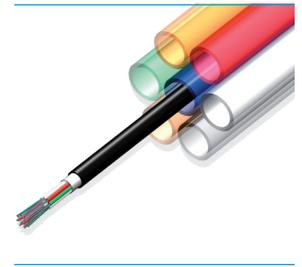


Blolite™ is a true air blown fiber solution using individual fibers specially coated to blow through microducts using “dry” air. Blolite is a point-to-point solution suited to in building networks where cable routes can be more tortuous and demanding than outside plant. The individually blown fibers can successfully be installed in complex routes where air blown fiber bundles or cables would otherwise struggle to navigate. The versatile system offers flexible installation options, with long-distance links of up to 1 kilometer achievable in larger duct sizes. Blolite installs easily by using compressed air with minimal disruption to the workplace and can be simply terminated using standard optical connectors.

MicroBlo™ cables are ideally suited for outdoor plant, campus and metro/WAN applications.

The micro cables are of a multiple loose-tube construction and are introduced into the microducts using a combination of pushing and blowing, using the compressed air as a lubricant to increase the installation distance.

The MicroBlo system accommodates a higher density of up to 144 fibers in a single cable, making it a better backbone for outdoor installations. Like its sister product Blolite, MicroBlo is secure, sustainable, future-proof, and easy to install.



Leviton's air blown fiber systems have been used successfully in the Scottish Parliament building, the Erasmus Medical Centre in the Netherlands, and various naval applications.

For more information, please visit levitonemea.com/airblownfiber