FLUOROTECHNOLOGY FOR BUILDING AND CONSTRUCTION APPLICATIONS

FluoroTechnology products are crucial to the building and construction industry, providing high durability, UV resistance and anti-corrosion properties to materials such as architectural membranes and coatings, caulks, and wire and cable.

Architectural membranes such as fluoropolymer-coated fabrics are used in the construction of large roofs, commonly recognizable above stadiums. These roofs provide weatherability and durability while remaining energy efficient and aesthetically appealing. Fluoropolymer based metal roof coatings also enhance durability and provide energy savings through solar reflectance and reduction of heat transfer into buildings. The use of fluoropolymers in paint coatings provides unmatched durability and UV resistance, reducing the need for maintenance that could put workers at risk, enhancing aesthetics, saving energy and extending the life cycle of building facades and bridges.

Fluorinated surfactants are used in adhesives, sealants and caulks to strengthen the bond to surfaces in building and construction materials. They help prevent infrastructure failures caused by corrosion and weather, while improving safety for construction workers and occupants and lowering the cost of building maintenance.

Properties such as high temperature endurance, fire resistance, chemical resistance and high stress crack resistance are crucial to wire and cable applications and are made possible through fluoropolymers.

The use of FluoroTechnology in the building and construction industry supports more than 7,000 jobs in the U.S. and almost 7,000 jobs in Europe. Globally, FluoroTechnology materials and products specific to the construction industry generate a total of $26.1 billion in economic output.¹

*FluoroCouncil’s Commitment to Sustainability*

FluoroCouncil and its members are working with regulatory authorities and other stakeholders worldwide to innovate and drive increasingly sustainable FluoroTechnology solutions, including the global transition from long-chain PFAS² to alternatives such as short-chain fluorochemicals. Short-chain fluorochemicals are alternatives to the long-chain PFAS that provide the same valuable properties, but with improved environmental and human health profiles.

All FluoroCouncil companies are charter members of the 2010/2015 PFOA Stewardship Program, a global partnership with U.S. Environmental Protection Agency (EPA) based on goals to eliminate perfluorooctanoic acid (PFOA) and related chemicals from facility emissions and product content by the end of 2015. Similar programs are in place with Environment and Health Canada. A significant volume of data has been developed and rigorously evaluated by industry and regulators, supporting the conclusion that the short-chain alternative substances offer equivalent performance with improved environmental and human health profiles.

According to the U.S. EPA, “data indicate that [shorter-chain chemicals] have substantially shorter half-lives in these animals than PFOA and are less toxic than long-chain PFAC chemicals.”

¹ Based on preliminary estimates of 2013 data by the American Chemistry Council.
² PFAS = per- and polyfluoroalkyl substances