

Edlon® Fluoropolymer Technologies – Smart Solutions for Ultra High Purity Fluid Management.

Edlon® is a Pfaudler company which has been the industry's Engineered Fluoropolymer experts for over 50 years providing products and solutions that save the industry money, time and keep the application safe. Edlon® Fluoropolymer technologies offer leading-edge solutions for corrosion protection against the most aggressive chemicals known in the industry as well as solutions for ultra-high purity fluid management for applications that must have parts per trillion (*ppt*) ultra-high purity levels.

One of the areas where Edlon® defines the industry standard is in the field of ultra-high purity fluid management. For example, in Semiconductor and Opto-Electronic fabrication, the increasing complexity of the fabricated electronic devices and the continually increased demand of reduced dimensions of device features and defect densities, drives the demand for strict control of the purity of all chemicals involved in every step of the fabrication process. As a result, the electronic devices market is tending towards ever more stringent purity requirements and increasingly searches for ways to obtain ultra-high purity chemicals and requires strict control over the methods and equipment which are used in their production, transportation and storage.

Edlon® Pure-Fusion™ Liners for Day Tanks.

Ultra-high purity mineral acids, bases and solvents form the core of wet fabrication processes. While the production of those chemicals is carried out using well established processes, demand for high purity necessitates careful control of material selection for linings and coatings used to passivate equipment such as distillation columns, condensers and heat exchangers as well as storage tank and makes it a central task for successful application. To produce such backbone chemicals with *ppt* purity levels means that Fluoropolymers materials will be the material of choice for construction.

What distinguishes Edlon® Fluoropolymer linings is not only that lining material is fabricated from ultra-high purity resins, but also the employed Edlon® proprietary fabrication processes are ones which guarantee lining maintains its functionality and suitability for ultra-high purity.

Of particular importance here is the type and quality of welded seams that must be used in fabricating bonded liners. Edlon® proprietary Pure-Fusion™ seaming technology was developed to eliminate all issues associated with manual air-welds commonly encountered in the bonded and loose liners. Using unpigmented Fluoropolymer resins, Pure-Fusion™ liners are machine-fabricated in a clean environment resulting in Pure-Fusion™ seams with high precision and reproducibility, superior surface finish and strength equivalent to that of the bulk Fluoropolymer liner.

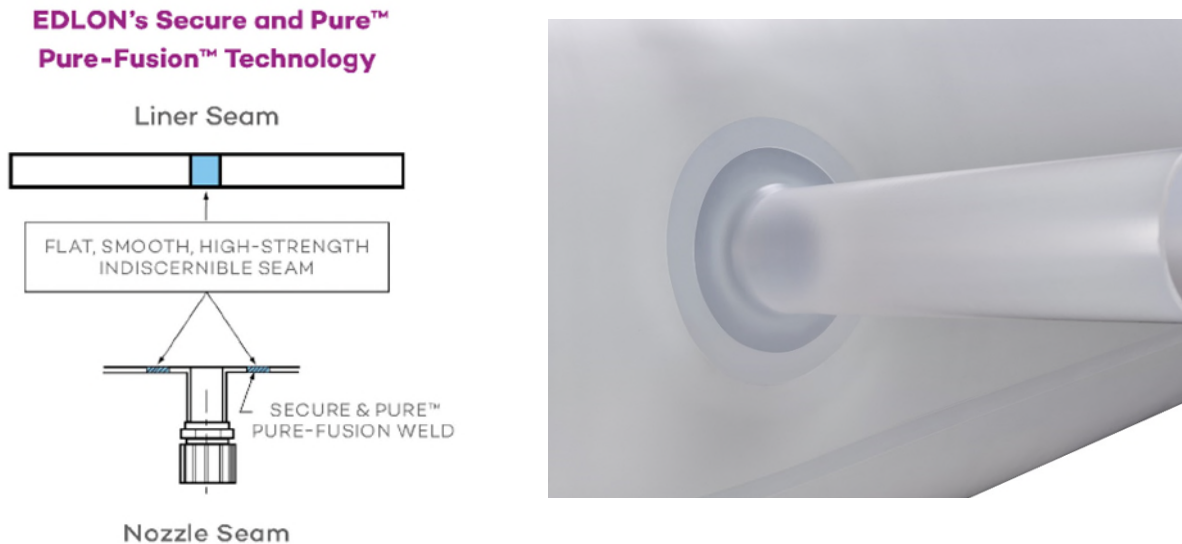


Figure 1 (left) Edlon's proprietary Fusion Welding Technology (Pure-Fusion™) ensures flat, smooth and high-strength indiscernible seams. (right) Pure-Fusion™ welding of nozzles in loose liners is a crucial feature to ensure longer service lifetime. No step or crevice between liner sheets for metal ion contamination, bacterial growth or other impurities to collect ensuring prolonged service lifetime.



Figure 2: shows one of a large number of a stainless-steel storage tanks lined with Edlon® PTFM (modified PTFE) bonded liner with Pure-Fusion™ Seaming Technology. Edlon designs, fabricates and line all storage tanks for use in Ultra-High Purity applications.

Contact Pfaudler today to learn more (Hisham.Samra@pfaudler.com)