

Corroflon Hose Liners

GP - General Purpose Liner



Purpose

Corroflon GP, SS is the general purpose grade of hose and has been carefully designed to satisfy the widest range of application requirements.

Design & Approvals

The hose liner is manufactured from hose quality grade PTFE conforming to FDA requirements 21 CFR 177.1550 extruded into tube and helically convoluted. It also includes a heavy gauge Grade 304 stainless steel reinforcing wire helically wound into the external root of the convolutions to strengthen the convoluted shape. The braid is high tensile grade 304 stainless steel wire braid to give maximum protection to the hose against internal pressure and external abrasion.

Corroflon GP hose liner tube also conforms to USP Class VI at normal temperatures and at 121°C (250°F), see page 9.

SP - Special Purpose Liner



Purpose

For applications requiring a higher temperature/pressure rating, greater flexibility and improved kink and crush resistance. Also for applications requiring full vacuum resistance for hose sizes larger than 2".

Design

The convolutions are closer together, yielding greater radial strength to the hose design.

Specifications

As for Corroflon GP, except that the maximum working pressure for wire braided grades is increased by 25%, the weight per metre is increased by 30%, the actual through bore is reduced by 1/8" (3mm), the maximum continuous length is reduced by 50%, the minimum bend radius is reduced by 25% and the angle of cleanability is <80°.

Available as SP (Natural) and SP, AS (Antistatic) Grades.

AS - Antistatic PTFE Liner



Purpose

Corroflon AS grade is an essential requirement in applications where there is the risk of an electrostatic charge build-up on the inside surface of the PTFE tube which may then discharge through the tube wall. Media passing through which create such a risk are fluids which have a Conductance of less than 10⁻⁸ S/m (Siemens per Metre), or 10⁴ pS/m such as fuels, solvents, freons, some WFI (ultra-pure "Water for Injection") and non-polar organics which are being transferred at a medium to high flow velocity.

All twin or multi phase media, and any non-mixing media, such as powder in air, or water droplets in steam, in gases or in oil, also colloidal fluids constitute a particular hazard for static charge generation, and always require grade AS.

A typical example involves cleaning systems which create a twin phase mixture passing through the hose at high velocity, such as WFI water purged out with air or nitrogen.

If in doubt, consult Aflex Hose.

Design & Approvals

Corroflon AS grade has an anti-static PTFE liner manufactured from FDA 21 CFR 177.1550 approved PTFE, and less than 2.5% of "high purity" Carbon Black material to FDA requirement 21 CFR 178.3297 and European Commission Directive 2007/19/EC. The carbon is encapsulated by the PTFE, and in normal, non-abrasive applications will not come loose to contaminate any fluid passing through. (This has been confirmed by Extractables and Leachables Tests in accordance with BPSA recommendations).

Corroflon AS hose liner tube also conforms to USP Class VI at normal temperatures and at 121°C (250°F), see page 9.

Antistatic Hose Assemblies

When "AS" (Antistatic) grade hose is specified, then the hose or hose assembly supplied will be tested in accordance with EN ISO 8031 and meet the Antistatic requirements of EN ISO 8031 Annex A. This requires, for an antistatic liner or antistatic cover, that the resistance between an appropriately placed foam electrode and a metallic end fitting will be between 10³ to 10⁸ ohms per assembly. For hose assemblies which meet these requirements an appropriate Grade "Ω" marking can be applied in accordance with EN ISO 8031 Annex A if requested.

NOTE: When in service, at least one end fitting must be connected to earth, to permit dissipation of the static charge from the end fitting.