

Nuclear Power Water Treatment



SUPERIOR QUALITY LININGS FOR NUCLEAR POWER WATER TREATMENT

- Condenser Polishing Vessels

NUCLEAR POWER WATER TREATMENT

Blair Rubber's personnel are experienced in designing and processing rubber compounds for the highly corrosive environments encountered in Nuclear Power Water Treatment applications.

Nuclear facilities require sulfites to be at absolute minimum levels. In order to maintain these low levels when using semi-hard rubber linings in demineralizing water treatment units, the lining must be pressure cured; either in an autoclave or by using the vessel as its own autoclave. Only high steam pressure curing will cross-link and combine the sulfur in semi-hard rubber linings.

On the original vessel, this is not difficult because linings such as **ENDURAFLEX™ VE-821-BNS**, **VE-823-WNS** and/or **VE-926-BNS** can be internally steam cured. It is recommended they be cured 12 hours at 260°F.

With older vessels requiring repairs, one has to make a judgment call as to how to repair the vessel. Basically, there are two options of repair. One is to use a chemical cure lining that is appropriate to match the

lining in the vessel. Chemical cure linings, may have high leechable sulfite levels,

even when cured with steam. Therefore, chemical cure linings are only considered acceptable on minor repairs. **C-922-BN** is a chemical cured semi-hard lining that has experienced success in repairing nuclear power plant vessels because of its low leechable sulfites when thoroughly cured.

The other option is to use the original semi-hard lining to repair with an internal steam pressure cure. However, one runs the risk of damaging the original lining when making a partial repair. Though the linings listed above will exhaust steam, the threshold level of leechable sulfites is not acceptable. Therefore, if one has a large area of repair, the safe recommendation is to strip and re-line the entire vessel with a pressure cured lining.

Contact BLAIR RUBBER's technical staff for assistance in selecting the correct lining for a specific service condition.



INNOVATION TO MAKE IT FIRST, QUALITY TO MAKE IT LAST.

Section 11: Examples of Rubber Lining Applications

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