

Ion Exchange Resin Vessel Liner Thickness: What You Need to Know

In ion exchange systems, **vessel liner thickness** is critical to maintaining long-term mechanical integrity and preventing chemical leaks or failures. Here's what you should know:

What Is a Vessel Liner?

The liner is the internal protective barrier inside a resin vessel, typically made from rubber, FRP (fiberglass-reinforced plastic), or thermoplastics like polyethylene or PVC. Its purpose is to:

- Prevent corrosion from regenerants (acid/caustic)
- Stop resin from contacting the steel shell
- Maintain pressure integrity under cycling conditions

Standard Liner Thickness Guidelines:

Material	Typical Thickness	Notes
Rubber	3/16" to 1/4" (4.8–6.4 mm)	Used in steel pressure vessels; requires spark testing to confirm integrity
FRP Liner	1/8" to 1/4" (3–6 mm)	Often integral to the vessel wall itself
Polyethylene	~1/4" (6 mm)	Common in small to medium molded vessels
PVC Sheet	1/8" to 3/16" (3–4.8 mm)	Bonded liner in some older or specialty systems

When to Inspect or Replace:

- Every **3–5 years**, especially if the vessel is 10+ years old
- If you notice **bubbling, cracking, or soft spots**
- After exposure to off-spec chemicals or heat
- If resin leakage or discoloration is observed in product water

✓ RTI Vessel Liner Inspection Services Include:

- Spark testing for rubber liner integrity
 - Thickness testing with ultrasonic gauges
 - Hardness testing for aging or softening
 - Full liner condition reports & recommendations
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📞 Need a liner inspection?

RTI can inspect, test, and even coordinate liner replacement to keep your system running safely and efficiently.

📞 **Call us:** 215-682-7099 ✉️ **Email:** sales@rtiservices.com 🌐 **Visit:** www.rtiservices.com

