



OzoneLab™ Instruments

## Material Compatibility with Hydrogen Peroxide (H<sub>2</sub>O<sub>2</sub>)


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### Theoretical rating (Cole Parmer)

Material	Compatibility 10% H <sub>2</sub> O <sub>2</sub>	Compatibility 30% H <sub>2</sub> O <sub>2</sub>	Compatibility 50% H <sub>2</sub> O <sub>2</sub>	Compatibility 100% H <sub>2</sub> O <sub>2</sub>
304 stainless steel	B2 - Good	B2 - Good	B2 - Good	B2 - Good
316 stainless steel	B - Good	B - Good	A2 - Excellent	A2 - Excellent
ABS plastic	A - Excellent	N/A	N/A	A - Excellent
Acetal (Delrin®)	D - Severe Effect	D - Severe Effect	D - Severe Effect	D - Severe Effect
Aluminum	A - Excellent	A - Excellent	A - Excellent	A - Excellent
Brass	N/A	N/A	N/A	D - Severe Effect
Bronze	B1 - Good	B1 - Good	B1 - Good	B1 - Good
Buna N (Nitrile)	D - Severe Effect	D - Severe Effect	D - Severe Effect	D - Severe Effect
Carbon graphite	C - Fair	C - Fair	C - Fair	C - Fair
Carpenter 20	C - Fair	B - Good	B - Good	D - Severe Effect
Cast iron	C - Fair	B - Good	N/A	B - Good
Ceramic Al <sub>2</sub> O <sub>3</sub>	N/A	N/A	N/A	A - Excellent
Ceramic magnet	A - Excellent	A - Excellent	A - Excellent	A - Excellent
Copper	D - Severe Effect	D - Severe Effect	D - Severe Effect	D - Severe Effect
CPVC	A - Excellent	A - Excellent	A - Excellent	A - Excellent
EPDM	A - Excellent	B - Good	B - Good	D - Severe Effect
Epoxy	C1 - Fair	B - Good	N/A	A - Excellent
Hastelloy-C®	A - Excellent	A - Excellent	A - Excellent	A - Excellent
Hypalon®	D - Severe Effect	D - Severe Effect	D - Severe Effect	D - Severe Effect

Hytre®	N/A	N/A	N/A	N/A
Kel-F®	A - Excellent	B - Good	A - Excellent	B - Good
LDPE	A - Excellent	C2 - Fair	C2 - Fair	C2 - Fair
Natural rubber	B - Good	C - Fair	C - Fair	C - Fair
Neoprene	D - Severe Effect	D - Severe Effect	D - Severe Effect	D - Severe Effect
NORYL®	A2 - Excellent	A2 - Excellent	N/A	A - Excellent
Nylon	C1 - Fair	D - Severe Effect	D - Severe Effect	D - Severe Effect
Polycarbonate	A2 - Excellent	A2 - Excellent	A2 - Excellent	A - Excellent
Polypropylene	A - Excellent	B1 - Good	B1 - Good	B1 - Good
PPS (Ryton®)	A - Excellent	A1 - Excellent	N/A	C - Fair
PTFE (Teflon®)	A - Excellent	A - Excellent	A - Excellent	A - Excellent
PVC	A1 - Excellent	A1 - Excellent	A1 - Excellent	A - Excellent
PVDF (Kynar®)	A - Excellent	A - Excellent	A1 - Excellent	A1 - Excellent
Silicone	A - Excellent	B - Good	B - Good	B - Good
Titanium	A - Excellent	B1 - Good	A - Excellent	B - Good
Tygon®	B - Good	B - Good	B - Good	B - Good
Viton®	A - Excellent	A - Excellent	A - Excellent	A - Excellent

**Ratings -- Chemical Effect**

- A. **Excellent.**
- B. **Good** -- Minor Effect, slight corrosion or discoloration.
- C. **Fair** -- Moderate Effect, not recommended for continuous use. Softening, loss of strength, swelling may occur.
- D. **Sever Effect**, not recommended for **ANY** use.

**N/A** = Information Not Available.

**Explanation of Footnotes**

1. Satisfactory to 72°F (22° C)
2. Satisfactory to 120°F (48° C)
3. Satisfactory for )-rings

**DANGER!****WARNING!**

Variations in chemical behavior during handling due to factors such as temperature, pressure, and concentration can cause equipment to fail, even though it passed an initial test.

### **SERIOUS INJURY MAY RESULT**

Use suitable guards and/or personal protection when handling chemicals

The information in this chart has been supplied to Cole-Parmer by other reputable sources and is to be used **ONLY** as a guide in selecting equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application.

Ratings of chemical behavior listed in this chart apply to a 48-hr exposure period; Cole-Parmer has no knowledge of possible effects beyond this period. Cole-Parmer does not warrant (neither express or implied) that the information in this chart is accurate or complete or that any material is suitable for any purpose.