

Technology Title: NUWC XP-1 Polyurethane

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ABSTRACT

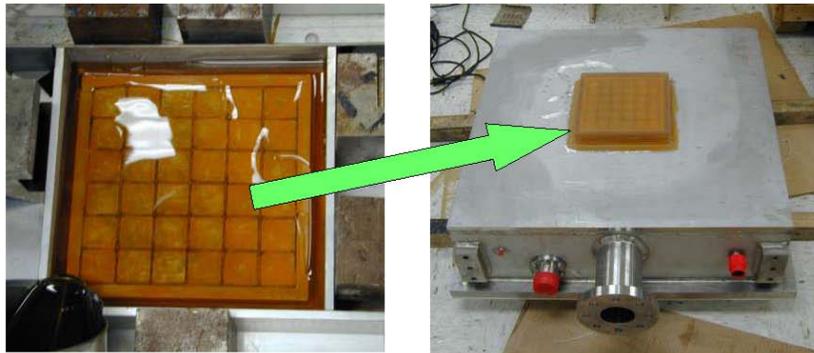
Keywords: polyurethane; transducer

NUWC XP-1 is a high performance, two-part polyurethane that exhibits good hydrolytic stability and exceptional acoustic properties. The formulation, originally developed at NRL-USRD in Orlando, Florida, is comprised of a prepolymer resin component composed of polyether-based polyols reacted with toluene diisocyanate, and a curing agent based upon dimethyltoluenediamine (DMTDA). The free isocyanate content of the prepolymer resin is very low. NUWC XP-1 can be cured at room or elevated temperatures in less than 24 hours. The cured product is optically clear.

THUMBNAIL

Polyurethane coating for underwater equipment available for immediate commercialization under a Cooperative Research and Development Agreement.

**NUWC XP-1 polyurethane being used to encapsulate
a prototype acoustic transducer.**



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