

Selection Guide for Transducer Applications



MATERIALS LIST

- Solvent Cleaners
- Water-Based Cleaners
- Surface-Abrasion Materials
- Special-Purpose Materials

For proper bonding of strain gages and compensation resistors, the surface of the transducer must be chemically clean and totally free of contaminants before applying the adhesive. Instruction Bulletin B-130 lists applicable cleaning materials and techniques for the use of M-Bond 610 and

43-B adhesives. For surface cleaning in “production-line” transducer manufacturing, refer to alternate cleaning procedures outlined in Micro-Measurements publication Strain Gage Installation Procedures for Transducers, a copy of which is available upon request.

SOLVENT CLEANERS

CSM-2:

Degreaser: A powerful environmentally friendly degreaser. Readily attacks general-purpose lubricating and hydraulic oils. Non-flammable. 22-oz (0.62-kg) pressured spray can. Dispensing solvents from “one way” containers prevents contamination buildup.

GC-6:

Isopropyl Alcohol: Frequently used as a solvent degreaser where chlorinated solutions are restricted. Flammable. 4-oz (120-ml) bottle.

WATER-BASED CLEANERS

Conditioner A:

A mild phosphoric acid compound. Acts as a mild etchant and accelerates the cleaning process.

MCA-1: 2-oz (60-ml) plastic squeeze bottle with on/off dispenser nozzle cap.

MCA-2: Same as MCA-1 except 16 oz (0.5 l).

Neutralizer 5A:

An ammonia-based material. Neutralizes any chemical reaction introduced by Conditioner A, and produces optimum surface conditions for most strain gage adhesives.

MN5A-1: 2-oz* [60-ml] plastic squeeze bottle with on/off dispenser nozzle bottle cap.

MN5A-2: Same as MN5A-1 except 16 oz (0.5 l).

*Note: The 2-oz [60-ml] size is recommended for bench use and is easily refilled from the 16-oz [0.5-l] bottle.



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SURFACE-ABRASION MATERIALS

Abrading is often necessary to dislodge contaminants and to remove rust, scale, etc. When grit-blasting, use fine alumina powder and high-quality filters, and never recycle used grit. Silicon-carbide paper may be used as an alternate to grit blasting.

Silicon-Carbide Paper:

SCP-1 220-grit: Suited to most steels. 1-in-x-100-ft [25-mm-x-30-m] roll.

SCP-2 320-grit: Suited to most steels. Also suited to aluminum alloys and other soft metals. 1-in-x-100-ft [25-mm-x-30-m] roll.

SCP-3 400-grit: Suited to aluminum alloys and other soft metals. 1-in-x-100-ft [25-mm-x-30-m] roll.

GC-5 Pumice Powder:

Produces a dull, matte finish. Recommended for minimal removal of surface material. 1/2 oz [15-ml] bottle.

SPECIAL-PURPOSE MATERIALS

CSP-1 Cotton Swabs:

100 single-ended applicators per package (6-in [150-mm] long, wooden stick).

GSP-1 Gauze Sponges:

200 3-x-3-in [75-x-75-mm] sponges per package.