

## GRADES OF REPLICA TAPE

Testex Press-O-Film replica tape is available in several thicknesses to facilitate profile measurement in different ranges:

Grade	QPC PN	Foam Layer Thickness (mils) (microns)	Range When Used With Gage (mils) (microns)
Fine / Medium	PN 100-007	0.4 10	not applicable
Coarse	PN 100-001	2.6+ 65+	0.8 to 2.0 20 to 60
Paint	PN 100-005	3.8+ 95+	1.3 to 3.3 32 to 85
X-Coarse	PN 100-003	5.0+ 128+	1.5 to 4.5 35 to 115

Fine/Medium grade material is commonly used in applications in which the replica is analyzed using optical interferometric techniques. Fine/Medium material is not suitable for use with a "dial thickness gage."

All grades are coated onto a tough polyester substrate 2.0 mils (50 microns) in thickness.

### INSTRUCTIONS FOR USING PRESS-O-FILM WITH A "DIAL THICKNESS MICROMETER GAGE"

Step 1: Locate a representative site for measurement.

Step 2: Select appropriate grade of Press-O-Film replica tape.

Step 3: Prepare snap gage: clean anvils, adjust zero point to read 8 mils (or, on a metric gage, 150  $\mu\text{m}$ ), i.e., minus 2 mils (minus 50  $\mu\text{m}$ ), the thickness of the incompressible substrate. (This procedure subtracts the thickness of the plastic substrate automatically from all readings.)

Step 4: Pull a single piece of adhesive-backed printed paper free of the release paper. The Press-O-Film is the 0.4 inch (1 cm) square white plastic film at the center of the adhesive-backed paper. A circle of paper should remain on the release paper.

Step 5: Check film thickness with gage. Film may vary in thickness and maximum limits of profiles cannot exceed thickness of the film coating. Release snap gage (reasonably) gently when making measurement.

Step 6: Apply film to surface to be measured. The adhesive-backed paper will hold it firmly in place.

Step 7: Rub burnishing tool over the round cut-out portion of replica tape, using moderate to firm pressure. The replica tape will become darker when surface is replicated. Make sure that the entire circular area has uniformly darkened.

Step 8: Remove replica and place between anvils of snap gage, making sure replica is centered between anvils. Gage reading is the average maximum peak-to-valley height of the blasted surface (when snap gage is adjusted as in step 3).

#### Rubbing Technique

Use the smoothest surface on the rubbing tool. A firm pressure is desirable, with either circular, or x- and y-direction, rubbing motions. Compress all parts of the film but be careful not to slide the film with respect to the surface by bumping the edges of the circular paper cutout.