

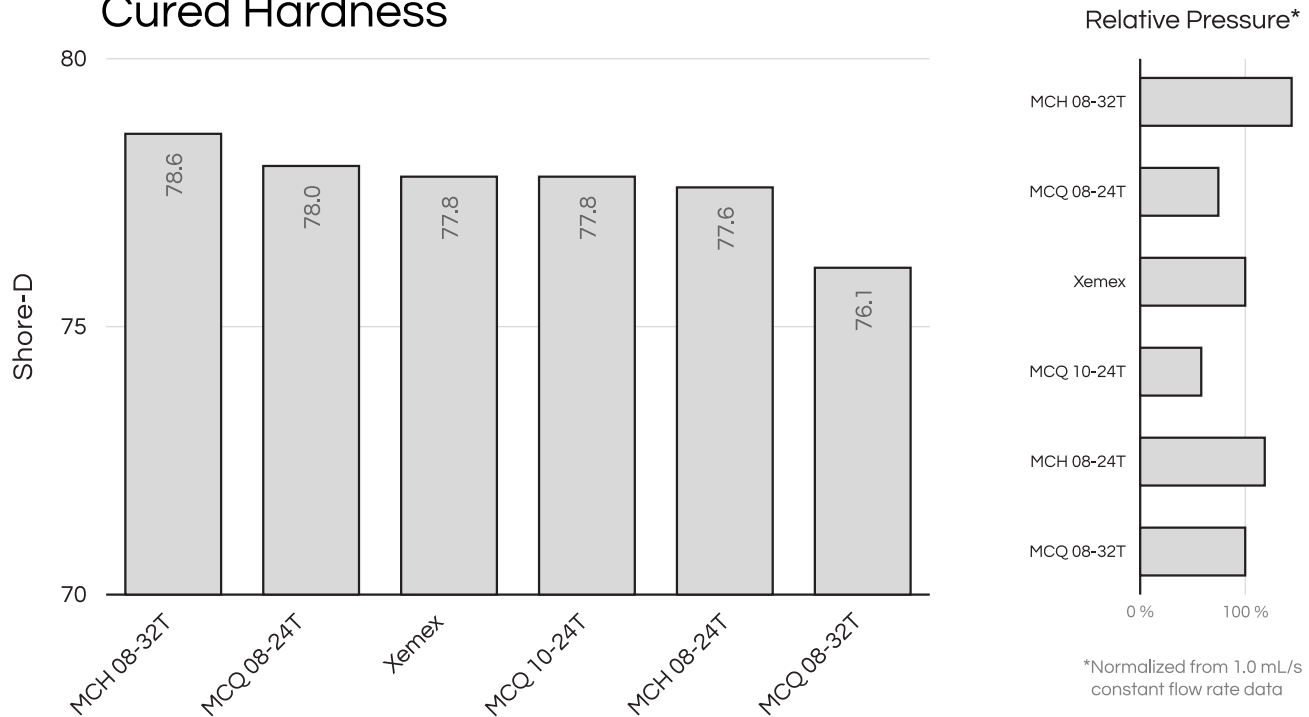


**Purpose** To compare the mixing performance of the Xemex® Static Mixer with commercially available mixers.

**Experimental** The 2-part formulation was dispensed using Re Mixer’s automated cartridge dispenser, having preset flow rate and purge routines. After curing at room temperature for 25 hours, hardness was determined through a single-blind collection using Rex Gauge’s RX-DD Series Durometer, and in accordance with ASTM D2240.

# 3M™ Scotch-Weld® DP420NS-Black

## Cured Hardness



**Mixing Performance** The hardness data suggests that Xemex yielded good mixing performance for 3M Scotch-Weld® DP420NS-Black. With a retained volume of only 2.5 mL, Xemex outperformed mixers with 24 and 32 elements, which have retained volumes in the order of 5 to 15 mL. These results suggest that Xemex is a candidate to replace the current mixer in applications using DP420NS.

**Back Pressure** From this data, one should expect back pressures with Xemex to be comparable to MCQ 08-32T, and lower than MCH 08-24T or MCH 08-32T at equivalent flow rates.

| Formulation                   | Type  | Mix Ratio** | Mixed** (cP) | Part A**            | Part B**          | Worklife** (min)     | Keywords |
|-------------------------------|-------|-------------|--------------|---------------------|-------------------|----------------------|----------|
| 3M Scotch-Weld® DP420NS-Black | Epoxy | 2:1         | —            | 190,000 to 270,000  | 60,000 to 130,000 | 20                   | —        |
| Laboratory Technician         |       | Cured Time  |              | Laboratory          |                   | Report Prepared by   |          |
| Lukas Duddleston, MS          |       | 25 hours    |              | 23±2 °C   35±5 % RH |                   | Lukas Duddleston, MS |          |

\*\*As reported in 3M’s Technical Data Sheet

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