

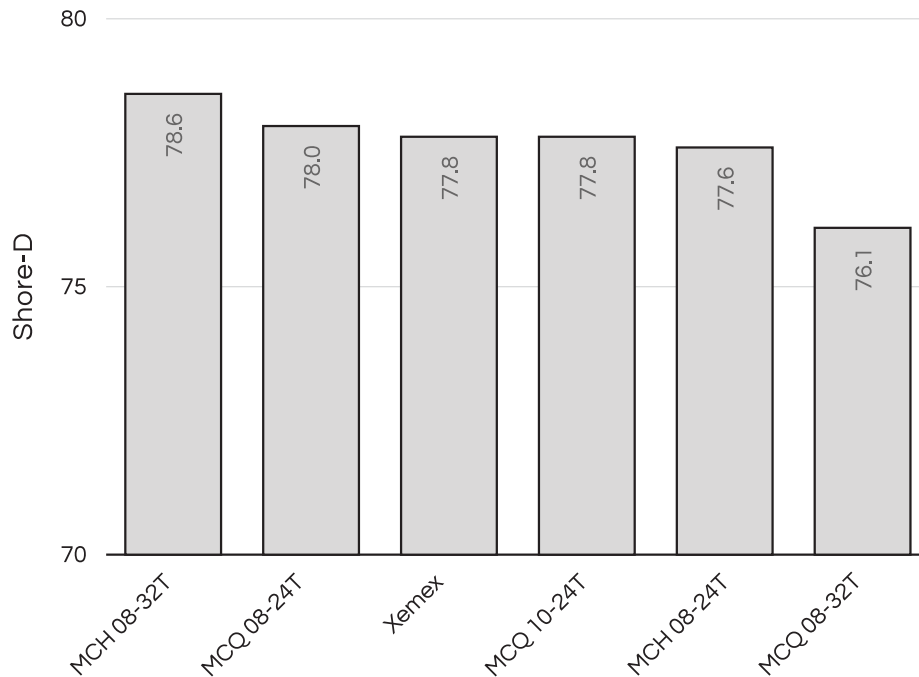


Purpose To compare the mixing performance of the Xemex® Static Mixer with commercially available mixers.

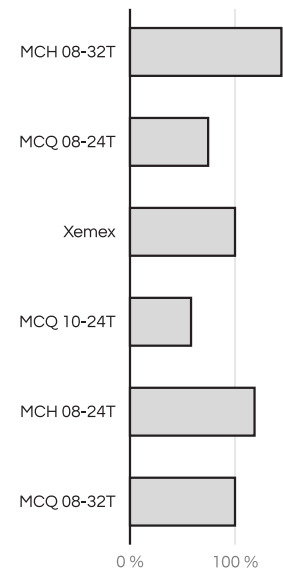
Experimental The 2-part formulation was dispensed using Re Mixer’s automated cartridge dispenser, having preset flow rate and purge routines. After curing at room temperature for 25 hours, hardness was determined through a single-blind collection using Rex Gauge’s RX-DD Series Durometer, and in accordance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

3M™ Scotch-Weld® DP420NS-Black

Cured Hardness



Relative Pressure*



*Normalized from 1.0 mL/s constant flow rate data

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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