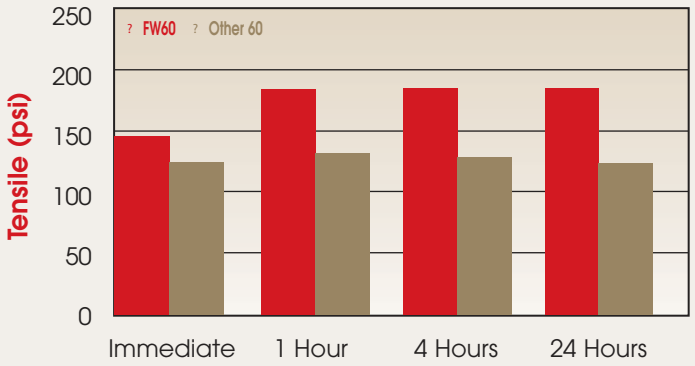
BADGER Sand
Superior by Nature, Quality by Badger

Comparative Tensile Strength Data

AFS grain fineness number (GFN) and base shape alone are not sufficient for measuring sand quality. Wet and dry processing techniques, raw material, and internal gradation control play significant roles in product performance. Compared to another commercially available Wisconsin round grain 60 GFN sand, Figures 1 and 2 show that Badger Cast FW60 sand produces higher tensiles at both 1.00% and 1.25% phenolic urethane cold box (PUCB) resin content.

Figure 1. Comparison at 1.00% Resin



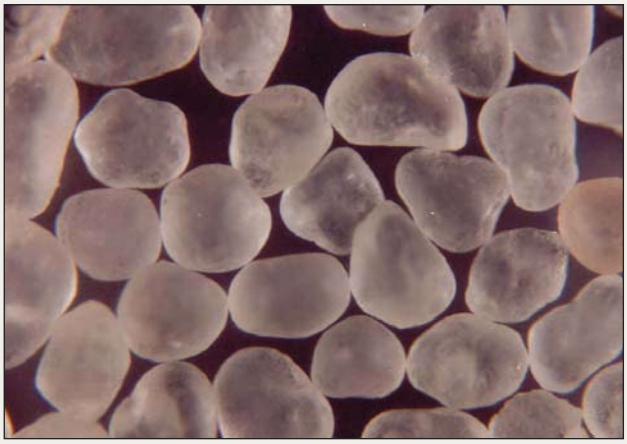
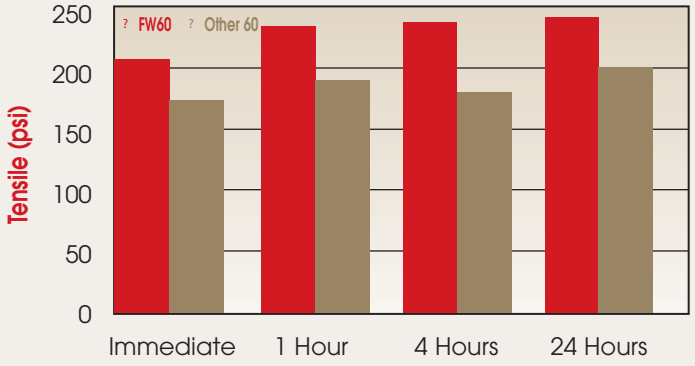


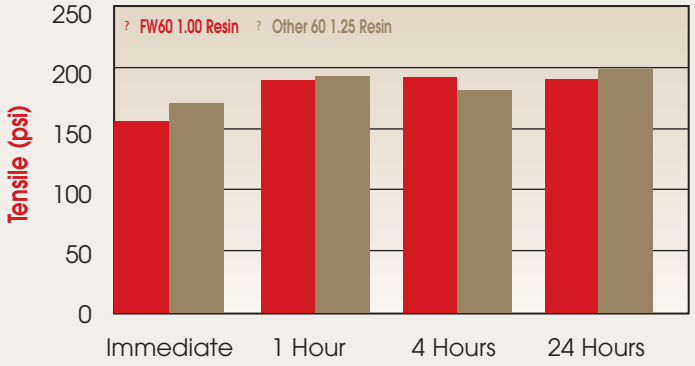
Figure 2. Comparison at 1.25% Resin



Careful sand selection and resin control can lead to reduced material costs and lower emissions without sacrificing tensile strength.

Figure 3 shows that Badger Cast FW60 yields comparable tensile strength with only 1.00% resin versus 1.25% resin content on a competitive Wisconsin 60 GFN sand. Considering the cost of today's resins, significant savings can be realized .

Figure 3. Comparable Tensile at Lower Resin Content



Badger Cast FW60 vs. Other Round 60 GFN Tensile Strength (psi) 1.25% PUCB Resin			Badger Cast FW60 vs. Other Round 60 GFN Tensile Strength (psi) 1.00% PUCB Resin		
Interval	**FW60**	**Other 60**	**Interval**	**FW60**	**Other 60**
Immediate	213.2	177.8	Immediate	168.2	150.1
1 Hour	229.7	195.5	1 Hour	194.7	162.4
4 Hours	239.4	190.1	4 Hours	196.6	157.4
24 Hours	244.8	204.8	24 Hours	198.8	152.4

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