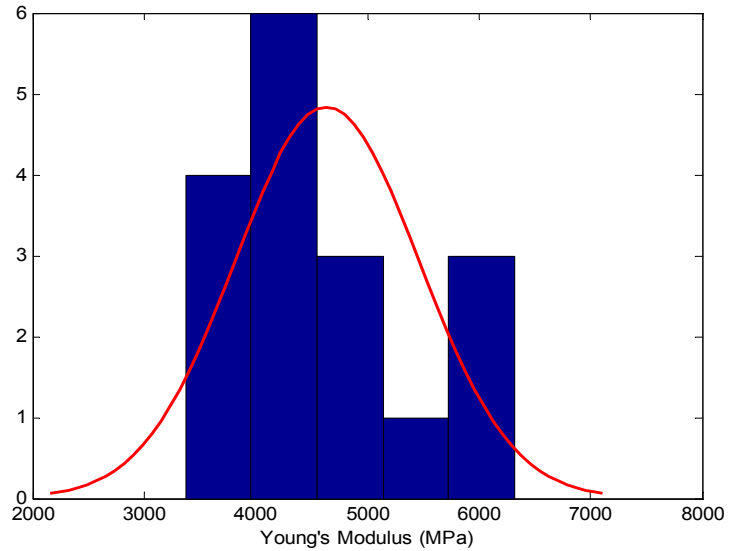


SPAGHETTI MATERIAL PROPERTIES

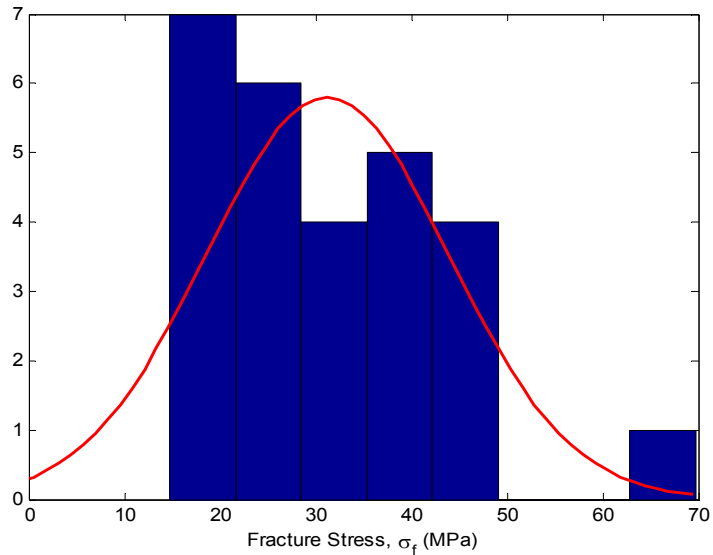
Summary of results from WIE Section 2, 2002 Testing

d (mm)	E (MPa)	test (type)
1.1	3555	compression
1.5	4829	compression
1.5	5762	compression
1.9	4246	compression
1.9	4309	compression
1	5200	flexure
1	5000	flexure
1	4300	flexure
1	3855	flexure
1.6	6320	flexure
1.6	5925	flexure
1.6	4400	flexure
1.6	3373	flexure
1.9	4400	flexure
1.9	4400	flexure
1.9	3900	flexure
1.9	5080	flexure



average **4638** MPa st. dev. **826** MPa
673 ksi **120** ksi

d (mm)	σ_f (MPa)	test (type)
1	47.5	flexure
1	47.6	flexure
1	42.75	flexure
1	40.8	flexure
1.6	37.3	flexure
1.6	28.4	flexure
1.6	36.1	flexure
1.6	30	flexure
1.9	39.1	flexure
1.9	44	flexure
1.9	40.96	flexure
1.9	35	flexure
0.8	69.7	tension
1.1	19.7	tension
1.1	21.2	tension
1.1	15	tension
1.1	24.4	tension
1.5	28.9	tension
1.5	20.7	tension
1.5	29.04	tension
1.6	23.4	tension
1.8	23.4	tension
1.9	22	tension
1.9	14.8	tension
1.9	14.9	tension
1.9	28.2	tension
1.9	18.3	tension



average **31** MPa st. dev. **13** MPa
5 ksi **2** ksi