

# Criteria Scoring

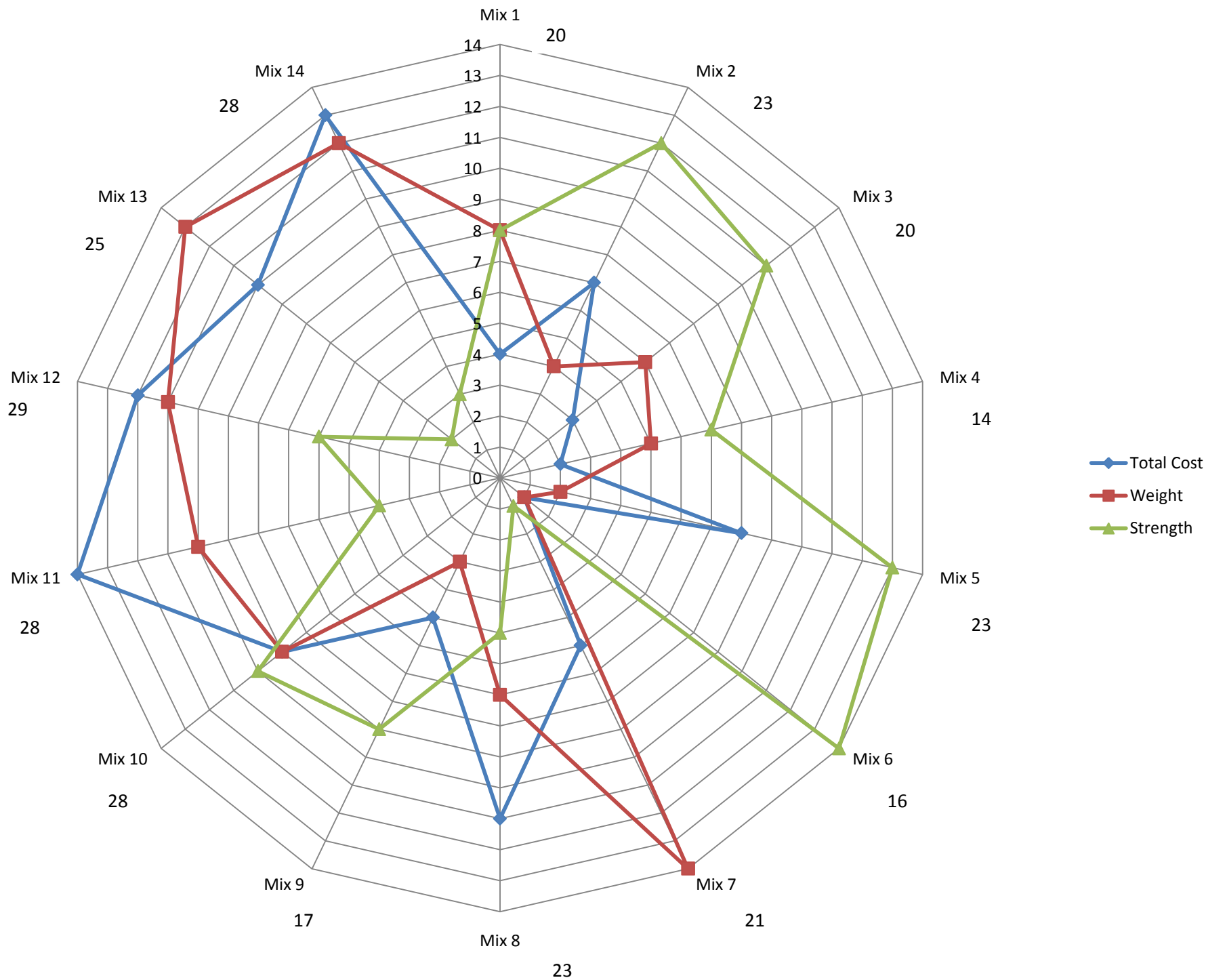
(weight in pounds)

Mixtures	Cement	Coarse Ag	Fine Ag (+ sand)	Reinforcement	Specimen Weight	PM Arborloo		Strength (psi)				Ranking			Score
						Total Cost	Weight	Compressive	Tensile* (est)	Tensile (actual)	Strength /Weight	Total Cost	Weight	Strength	
<b>Mix 1</b>	Ternary	Rubber	Styrofoam	None	6.45	\$ 19.22	90.70	1801.63	360.33		3.97	4	8	8	20
<b>Mix 2</b>	Ternary	Coconut	Styrofoam	None	6.77	\$ 13.59	95.20	2997.68	599.54		6.30	7	4	12	23
<b>Mix 3</b>	Ternary	Coconut	Plastic	None	6.7	\$ 27.59	94.22	2758.95	551.79		5.86	3	6	11	20
<b>Mix 4</b>	Ternary	Rubber	Plastic	None	6.73	\$ 33.25	94.64	1698.98	339.80		3.59	2	5	7	14
<b>Mix 5</b>	Ternary	Limestone	Styrofoam	None	6.88	\$ 12.62	96.75	3745.71	749.14		7.74	8	2	13	23
<b>Mix 6</b>	Ternary	Limestone	Plastic	None	7.08	\$ 43.58	99.56	4661.65	932.33		9.36	1	1	14	16
<b>Mix 7</b>	Ternary	Rubber	Styrofoam	None	4.46	\$ 15.41	62.72	354.92	70.98		1.13	6	14	1	21
<b>Mix 8</b>	Cement	Coconut	Sand	None	6.67	\$ 5.88	93.80	1301.13	260.23		2.77	11	7	5	23
<b>Mix 9</b>	Ternary	Rubber	Coconut	None	6.84	\$ 18.27	96.19	2038.83	407.77		4.24	5	3	9	17
<b>Mix 10</b>	Cement	Coconut	Styrofoam	None	5.87	\$ 8.85	82.55	2301.44	460.29		5.58	9	9	10	28
<b>Mix 11</b>	Cement	Coconut	Styrofoam	None	13.57	\$ 5.62	71.61	-	-	245.00	3.42	14	10	4	28
<b>Mix 12</b>	Cement	Coconut	Styrofoam	Bird Net	13.55	\$ 5.71	71.51	-	-	309.00	4.32	12	11	6	29
<b>Mix 13</b>	Cement	Coconut	Styrofoam	Ind Fibers	13.04	\$ 6.89	68.82	-	-	178.00	2.59	10	13	2	25
<b>Mix 14</b>	Cement	Coconut	Styrofoam	Coc Husk	13.11	\$ 5.62	69.19	-	-	238.80	3.45	13	12	3	28

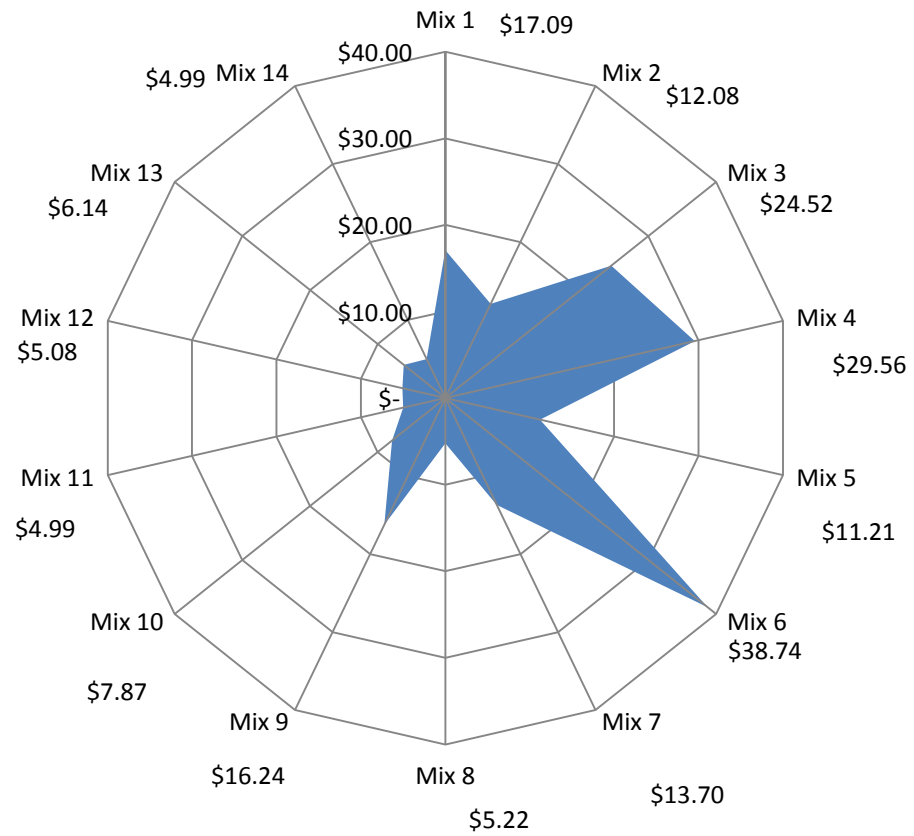
\* Calculated as 20% of compressive strength

Mix 12 (with cement, coconut, styrofoam, sand, and bird netting) scores highest among the mixes. Cost and weight rank among the lowest, and tensile strength meets specifications.

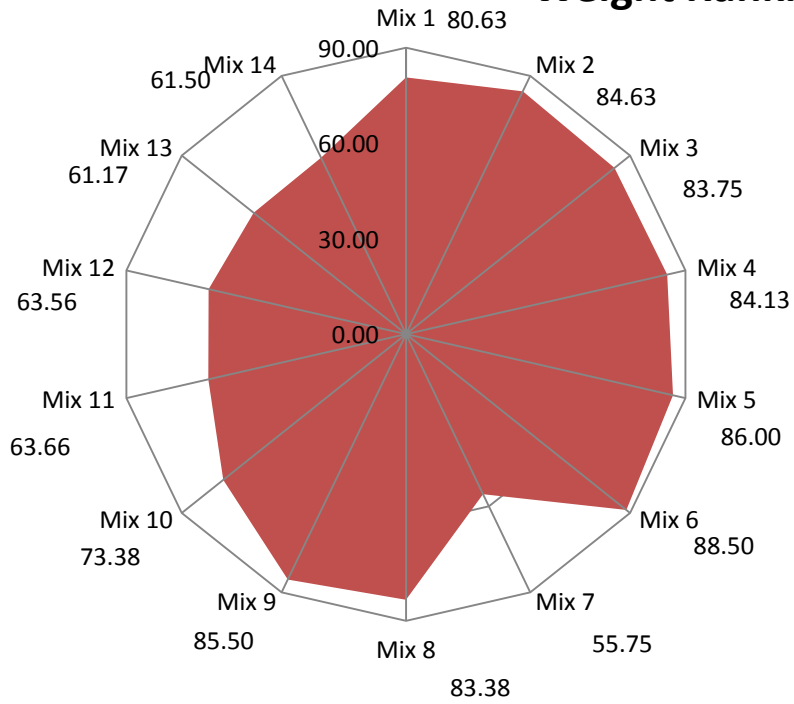
# Mix Rankings



# Total Cost (Peter Morgan's Arborloo)



### Weight Ranking in lbs.



### Strength/ Weight Ranking

