

## Typical Design Mix Proportion of Cement (DOE method)

Material	Percentages used in this mixing		
MIRHA	5	7.5	10
SF	8	-	-
PFA	10	-	-

Mix Designation	Cement kg/m <sup>3</sup>	MIRHA kg/m <sup>3</sup>	SF kg/m <sup>3</sup>	PFA kg/m <sup>3</sup>	Sand kg/m <sup>3</sup>	Agg. kg/m <sup>3</sup>	Slump mm
100OPC	825	0	0	0	610	1170	50-100
95OPC+5MIRHA	784	41	0	0	610	1170	50-100
92.5OPC+7.5MIRHA	763	62	0	0	610	1170	50-100
90OPC+10MIRHA	742	83	0	0	610	1170	50-100
92OPC+8SF	759	0	66	0	610	1170	50-100
87OPC+5MIRHA+8SF	718	41	66	0	610	1170	50-100
84.5OPC+7.5MIRHA+8SF	697	62	66	0	610	1170	50-100
82OPC+10MIRHA+8SF	676	83	66	0	610	1170	50-100
90OPC+10PFA	742	0	0	83	610	1170	50-100
85OPC+5MIRHA+10PFA	701	41	0	83	610	1170	50-100
82.5OPC+7.5MIRHA+10PFA	680	62	0	83	610	1170	50-100
80OPC+10MIRHA+10PFA	660	83	0	83	610	1170	50-100
82OPC+8SF+10PFA	676	0	66	83	610	1170	50-100
77OPC+5MIRHA+8SF+10PFA	635	41	66	83	610	1170	50-100
74.4OPC+7.5MIRHA+8SF+10PFA	614	62	66	83	610	1170	50-100
72OPC+10MIRHA+8SF+10PFA	594	83	66	83	610	1170	50-100

Notes: Super Plasticizer used 1% per cement weight