

Commonly Used Marshall Concrete Mixes

Use	Mix #	Description
Footings	3147	3000 P.S.I. mix with ¾" rock
	3647	3500 P.S.I. mix with ¾" rock
Inside floors or slabs on sand base	3647	3500 P.S.I. ¾" rock, water reducer
	4147	4000 P.S.I. ¾" rock, water reducer
Inside Slabs on poly or on Styrofoam	S4647	4500 P.S.I. ¾" rock, water reducer
	S4046	6 bag, ¾" rock, water reducer, 5% or 6% air (if needed)
	S4045	6 bag, ¾" rock, water reducer
Garages & outside slabs	4148	4000 P.S.I. ¾" rock, water reducer with 6% air
	4648	4500 P.S.I. ¾" rock, water reducer with 6% air
Driveways	3A42	MNDOT Exterior concrete with air (4500 P.S.I.)
	4648	4500 P.S.I. ¾" rock, 6% air
	4668	4500 P.S.I. ¾" granite, 6% air
	4046	6 bag ¾" rock, 6% air
	4546	6 ½ bag ¾" rock, 6% air
Exposed aggregate mixes (extra rock)	E4036	6 bag, ½" rock, water reducer with 6% air
	E4026	6 bag, 3/8" rock, water reducer with 6% air
Wall mixes	W3648	3500 P.S.I., ¾" rock, water reducer with 5% air
	W4148	4000 P.S.I., ¾" rock, water reducer with 5% air
2" Line pump Buckeye fiber recommended	P4127	4000 P.S.I. 3/8" rock, water reducer, 1-3% air
	P4128	4000 P.S.I. 3/8" rock, water reducer, 5-6% air
	P4628	4500 P.S.I. 3/8" rock, water reducer, 5-6% air
Stamp mix Fiber recommended	C4148	4000 P.S.I. (¾" rock, -reduced qty.) water reducer, air
	C4046	6 bag (¾" rock – reduced qty.), water reducer, 6% air.
Corefills	3128	3000 P.S.I., 3/8" rock, water reducer with 5% air
High Early mixes Fiber recommended	L4145	2 day 4000 P.S.I. ¾" rock, water reducer, 1-3% air
	L4146	2 day 4000 P.S.I. ¾" rock, water reducer, 6% air

Switch most exterior performance mixes to bag mixes between October 15 and April 30.

All mixes designed for placement at 4" slump – to maintain mix performance, use super plasticizers to achieve higher slumps. Using water to increase slump will decrease strength, density and durability of finished product.

Marshall Admixture Cheat Sheet: 2014

ADMIXTURES ADDED TO CONCRETE

ADMIXTURE	COST	DOSAGE
CALCIUM CHLORIDE – 1 lb. of CaCL = 16 fl. oz. 32 oz. in a quart. 128 oz. in a gallon. 8 lbs. CaCL/Gallon.	\$29.00 per bag – customer pays for full bag when CaCL is mixed on job.	.5 % EQUALS 2 LBS TIMES # OF YARDS 1.0 % EQUALS 4 LBS TIMES # OF YARDS 1.5 % EQUALS 6 LBS TIMES # OF YARDS 2.0 % EQUALS 8 LBS TIMES # OF YARDS
Non-corrosive accelerator - NC534	\$12.00 per gallon	8 oz. per cwt is equivalent to 1% CaCl 45 oz. per yard on six bag mixes for 1% 30 oz. per yard on footings for 1%
Superplasticizer - Rheobuild 1000	\$18.50 per gallon	8-20 oz. per cwt of cement. 45-113 oz. per yard of six bag mix (128 oz. = 1 gallon)
AIR - AE90	NO CHARGE	.5 OZ per cwt of cement – which means about 2.8 oz. Per yard to convert a six bag mix without air to 6% air. 1.4 oz. will change no air to about 3%
ADDING PRODUCT	\$45.00	Adding any customer provided product to a load of concrete.
COLOR WASH OUT	\$45.00	

Concrete Temp	DELVO dosage for hours of additional working time requested.								
	Oz./ CWT of Portland Cement - CWT = weight of Portland divided by 100.								
	.5-1.0 hrs.	1.1-1.5	1.6-2.0	2.1-2.5	2.6-3.0	3.1-3.5	3.6-4.0	4.1-4.5	4.6-5.0
100-109	5	6	7	8	9	10	11	12	13
90-99	4	5	6	7	8	9	10	11	12
80-89	3	4	5	6	7	8	9	10	11
70-79	2	3	4	5	6	7	8	9	10
60-69	1	2	3	4	5	6	7	8	9

The above dosages apply to straight cement mixes. Reduce dosage by 1 oz / cwt for mixes containing high amounts of flyash or dose on cement content only.

Always be conservative with dosage if you are not sure or don't include all the variables.

Telephone Numbers and Addresses

Minneapolis plant	2610 Marshall Street N.E. Mpls, MN 55418		
St. Paul Plant	781 Hubbard Street St. Paul, MN 55104		
Ramsey Plant	14041 Unity Street N.W. Ramsey, MN 55303		
Hutchinson Plant	311 East Highway 7, Hutchinson, MN 55350		
Ready Mix Dispatch	612-789-4305	Jon Retterath	612-706-4725
Block Dispatch	612-789-4303	Tom Solberg	612-706-4719
Truck Garage	612-706-4712	Fish Fischer	612-706-4702
Hutchinson toll free	877-528-7748	Billing Office	612-706-4706
Hutchinson Plant	320-587-5019	Jay's Office	612-706-4703