

Denver Approved CLSM (Controlled Low Strength Material) for Narrow Trench & Pit backfill. Mix Approval List for 2020-2021

City & County Denver - DOTI - ROWS - Construction Engineering and Inspections, Materials Group

Specifications in MGPEC Item 19 (mgpec.org) and summarized in Denver Transportation Standards & Details, 2017 version.

Last update was: **8/4/2021**

All placements of sand/aggregate flowfill shall be placed at slumps (ASTM C43) of 7 to 10 inches, to allow material to flow and fill voids
 All placements of flyash based flashfill shall be placed with (ASTM D6103) spreads of 8 inch minimum, or one lift slumps (modified C143) of 7 to 10 inch.
 Designs are good for two years

Supplier	Mix Number	CLSM Type (Flowfill or Flashfill)	PE S/S Submittal Date	early day psi	7 day psi	28 day psi	RE (Removability Modulus or Idx), need <=1.50 for Flyash based	Notes	Approved 2020?
On Demand Concrete	QSFF100	FlowFill	2/13/2020		39	64	1.03		
On Demand Concrete	QSFF90	FlowFill	2/13/2020		48	76	1.05		
On Demand Concrete	QSFF090C	FlowFill	5/13/2020		38	61	1.09	Supplier expects ready to place pavement at 1 hour.	2020_OK to use
On Demand Concrete	QSCAP1500C	Flowfill Temp Trench Cap	5/13/2020		2000	2,800	place thin, later remove for permanent	Supplier expects traffic ready at 1 hour, as temp travel surface.	2020_OK to use
On Demand Concrete	QSFF080S	FlowFill	3/11/2021		33	80	1.21		
On Demand Concrete	CDFF100R	FlowFill	12/11/2019		41	65	1.3		
On Demand Concrete	QSCAP1500S	FlowFill	3/1/2021		1060	2,580	place thin, later remove for permanent		
Metro Mix (Aggregate Industries)									
Martin Marietta	FF0325	FlowFill	6/23/2021			80	1.28		
Martin Marietta	FF1700	FlowFill	6/23/2021			90	1.4		
Flashfill Services	CX-40-70	Flashfill	4/7/2020	80 at 1 day	190	270	0.45	Supplier expects traffic ready at 1 hour, as temp travel surface.	2020_OK to use
Flashfill Services	D-100-02	Temp Trench Cap	5/4/2020	880at 4 hr, 2000 at 1 day	2160	2460	place thin, later remove for permanent		2020_OK to use
Burnco									
Brannan Ready Mix	500907R	Flow Fill	3/21/2021		37	73	1.38		2021_OK to use
Alpha-Omega	alphafillplus	FlowFill	7/14/2020	n/a	70	79	1.4	fast setting	2020_OK to use
	DarFlowSand	FlowFill	1/6/2020	n/a	35	5			2020_OK to use
	135FF 57/67Sand	FlowFill	1/6/2020	n/a	48	75			2020_OK to use
Aggregate Industries	9008000	FlowFill	8/12/2020		n/a	70	n/a		2020_OK