

AMENDMENT TO OPSS 1010, APRIL 2013

Special Provision No. 110S06

May 2019

1010.05 MATERIALS

1010.05.03 Granular A and M

Subsection 1010.05.03 of OPSS 1010 is amended by deleting the second paragraph in its entirety and replacing it with the following:

Unless specified elsewhere in the Contract Documents, Granular A and M aggregates may include up to a combined total of 15%, by mass, of glass or ceramic material or both and;

- a) Up to 50%, by mass, of asphalt-coated particles derived from RAP, when the granular material is being used for shouldering purposes; or
- b) Up to 30%, by mass, of asphalt-coated particles derived from RAP, when the granular material is being used for all other purposes.

Tables 3, 5 and 7 of OPSS 1010 are deleted in their entirety and replaced with the following:

**Table 3
Production Requirements**

Lab Test	MTO Test Number	Sieve	Granular					SSM	
			A	B Type I (Note 1)	B Type II	B Type III (Note 1)	M		O
Sieve Analysis, % passing	LS-602	150 mm	-	100	-	100	-	-	100
		106 mm	-	-	100	-	-	-	-
		37.5 mm	-	100 (Note 2)	100 (Note 3)	100 (Note 2)	-	100	-
		26.5 mm	100	50.0 - 100	50.0 - 100	50.0 - 100	-	95.0 - 100	50.0 - 100
				100 (Note 4)	100 (Note 4)	100 (Note 4)			
		19.0 mm	85.0 - 100	-	-	-	100	80.0 - 95.0	-
		13.2 mm	65.0 - 90.0	-	-	-	75.0 - 95.0	60.0 - 80.0	-
		9.5 mm	50.0 - 73.0	-	-	32.0 - 100	55.0 - 80.0	50.0 - 70.0	-
		4.75 mm	35.0 - 55.0	20.0 - 100	20.0 - 55.0	20.0 - 90.0	35.0 - 55.0	20.0 - 45.0	20.0 - 100
1.18 mm	15.0 - 40.0	10.0 - 100	10.0 - 40.0	10.0 - 60.0	15.0 - 40.0	0 - 15.0	10.0 - 100		
300 µm	5.0 - 22.0	2.0 - 65.0	5.0 - 22.0	2.0 - 35.0	5.0 - 22.0	-	5.0 - 95.0		
150 µm	-	-	-	-	-	-	2.0 - 65.0		
75 µm	2.0 - 8.0	0 - 8.0	0 - 10.0	0 - 8.0	2.0 - 8.0	0 - 5.0	0 - 25.0		
								2.0 - 10.0 (Note 6)	0 - 10.0 (Note 6)
Percent Crushed Particles, % minimum	LS-607	-	60	-	100	-	60	100	-
2 or more Crushed Faces, % minimum	LS-617	-	-	-	-	-	-	85 (Note 7)	-
Asphalt-Coated Particles, Coarse Aggregates, % maximum	LS-621	-	30	30	0	30	0	0	
			50 (Note 8)						50 (Note 8)

Table 3 Notes:

- When RAP is blended with other aggregates in Granular B Type I or Type III, 100% of the RAP being used shall pass the 75 mm sieve. However, the conditions given in Notes 2., 3. and 4 supersede this requirement.
- When Granular B Types I and III are used as granular backfill for pipe subdrains or as a granular blanket for wick drains, 100% of the material shall pass the 37.5 mm sieve.
- When Granular B, Type II is used as granular backfill for pipe subdrains, as granular backfill for structures or as a granular blanket for wick drains, 100% of the material shall pass the 37.5 mm sieve.
- When Granular B is used for embedment, bedding or cover material, 100% of the material shall pass the 26.5 mm sieve.
- When the aggregate is obtained from an iron blast furnace slag source.
- When the aggregate is obtained from a quarry or blast furnace slag or nickel slag source.
- When Granular O is produced from boulders, cobbles, or gravel retained on the 50 mm sieve.
- Aggregates used for shouldering purposes, may include up to 50%, by mass, of asphalt-coated particles.

**Table 5
Range Requirements for Gradation (LS-602)**

MTO Sieve	Maximum Acceptable Range						SSM
	Granular						
	A	B Type I	B Type II	B Type III	M		
150 mm	-	1	-	1	-	-	1
106 mm	-	-	1	-	-	-	-
37.5 mm	-	1 (Note 1)	1 (Note 1)	1 (Note 1)	-	1	-
26.5 mm	1	1 (Note 2)	30.0 ----- 1 (Note 2)	1 (Note 2)	-	5.0	-
19.0 mm	8.0	-	-	-	1	8.0	-
13.2 mm	20.0	-	-	-	16.0	17.0	-
9.5 mm	20.0	-	-	-	18.0	17.0	-
4.75 mm	18.0	-	22.0	-	18.0	18.0	-
1.18 mm	18.0	-	18.0	-	18.0	12.0	-
300 µm	12.0	50.0	12.0	25.0	12.0	-	-
75 µm	5.0	7.0	5.0	7.0	5.0	4.0	15.0

Table 5 Notes:

1. When Granular B is used as granular backfill for pipe subdrains, as granular backfill for structures or as a granular blanket for wick drains.
2. When Granular B is used for embedment, bedding or cover material.

**Table 7
Adjustment Points**

MTO Sieve	Adjustment Points Per 0.1% Deviation from Specified Limit				SSM
	Granular				
	A	B	M	O	
150 mm	-	0.1 (Note 1)	-	-	0.1
106.5 mm	-	0.1 (Note 2)	-	-	-
37.5 mm	-	0.1 (Note 3)	-	0.1	-
26.5 mm	0.1	0.1	-	0.1	0.1
19.0 mm	0.1	-	0.1	0.1	-
13.2 mm	0.1	-	0.1	0.1	-
9.5 mm	0.1	-	0.1	0.1	-
4.75 mm	Excess Passing 0.5 / Insufficient Passing 0.2				0.1
1.18 mm	0.1	0.1	0.1	0.1	0.1
300 µm	0.1	0.1	0.1	-	0.1
150 µm	-	-	-	-	0.1
75 µm	1.0	1.0	1.0	1.0	0.5

Table 7 Notes:

1. Granular B Type I and Type III only.
2. Granular B Type II only.
3. When Granular B is used as granular backfill for pipe subdrains, as granular backfill for structures or as a granular blanket for wick drains.