

BEDDING AND JOINTING SAND SPECIFICATIONS

Use a sharp coarse river washed sand or sharp sand with multi-sized grains. The coarse sand will bind together when you go over the pavers with the compactor. This will make the joints between the paver solid and prevent moisture from getting under the pavers. The problem with using fine sand is that it will wash out easily and not create a locking friction joint between the pavers

Provide bedding and joint sand as follows:

1. Clean, non-plastic, free from deleterious or foreign matter, symmetrically shaped, natural or manufactured from crushed rock.
2. Do not use limestone screenings, or stone dust, or sand for the bedding sand material that does not conform to the grading requirements of [ASTM C 33][CSA A23.1-FA1].
3. Do not use mason sand, or sand conforming to [ASTM C 144][CSA A179] for the bedding sand.
Note: If the pavement will be exposed to heavy traffic with trucks, i.e., a major thoroughfare with greater than 1.5 million 18-Kip (80 kN) equivalent single axle loads, contact ICPI for test method and criteria for assessing the durability of bedding sand.
4. Where concrete pavers are subject to vehicular traffic, utilize sands that are as hard as practically available.
5. Sieve according to [ASTM C 136][CSA A23.2A].
6. **Bedding Sand Material Requirements:** Conform to the grading requirements of [ASTM C 33][CSA A23.1-FA1] with modifications as shown in Table 1.

Grading Requirements for Bedding Sand			
ASTM C 33		CSA A23.1-FA1	
Sieve Size	Percent Passing	Sieve Size	Percent Passing
3/8 in.(9.5mm)	100	10mm	100
No. 4 (4.75mm)	95 to 100	5mm	95 to 100
No. 8 (2.36mm)	85 to 100	2.5mm	80 to 100
No. 16 (1.18mm)	50 to 85	1.25mm	50 to 90
No. 30 (0.600mm)	25 to 60	0.630mm	25 to 65
No. 50 (0.300mm)	10 to 30	0.315mm	10 to 35
No. 100 (0.150mm)	2 to 10	0.160mm	2 to 10
No. 200 (0.075mm)	1	0.075mm	1

Note: Coarser sand than that specified in Table 2 below may be used for bedding sand including C 33 or A23.1 material as shown in Table 1. Use material where the largest sieve size easily enters the smallest joints. For example, if the smallest paver joints are 2 mm wide, use sand 2 mm and smaller in particle size. If C 33 or A23.1 sand is used for joint sand, extra effort may be required in sweeping material and compacting the pavers in order to completely fill the joints.

7. **Joint Sand Material Requirements:** Conform to the grading requirements of [ASTM C 144][CSA-A179] as shown with modifications in Table 2 below:

Grading Requirements for Joint Sand				
Sieve Size	ASTM C 144	ASTM C 144	CSA A179	
	Natural Sand Percent Passing	Manufactured Sand Percent Passing	Sieve Size	Percent Passing
No. 4 (4.75mm)	100	100	5mm	100
No. 8 (2.36mm)	95 to 100	95 to 100	2.5mm	90 to 100
No. 16 (1.18mm)	70 to 100	70 to 100	1.25mm	85 to 100
No. 30 (0.600mm)	40 to 75	40 to 100	0.630mm	65 to 95
No. 50 (0.300mm)	10 to 35	20 to 40	0.315mm	15 to 80
No. 100 (0.150mm)	2 to 15	10 to 25	0.160mm	0 to 35
No. 200 (0.075mm)	0 to 1	0 to 10	0.075mm	0 to 1

If the sand is damp, don't use it. It needs to be bone dry to 'flow'.