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Hunter Water Corporation A.B.N. 46 228 513 446
Standard Technical Specification for:

CONSTRUCTION AND PIPE BEDDING MATERIALS

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AMENDMENTS FROM THE PREVIOUS EDITION - JULY 1997

Clause	Amendment
All	General formatting and referencing changes to improve clarity but no change to technical requirements

1. GENERAL

1.1 Scope

This Standard Technical Specification details requirements for the supply of construction and pipe bedding materials comprising naturally occurring sand, river sand, crushed and uncrushed stone and crushed slag.

1.2 Interpretation

Headings are for the convenience of the reader and shall not be used in the interpretation of this Standard Technical Specification.

Unless the context requires otherwise any expression such as "give notice", "submit", "approval", or "directed" means give notice to, submit to, approval by, or directed by the person nominated by the Principal or Purchaser.

2. MATERIALS

2.1 General

Supply material which meets the grading requirements in clause "Grading" and;

- is hard, tough, durable, and uncoated;
- contains no lumps, soft or flaky particles, or vegetable matter including roots or bark;
- has not more than a total of 3% by dry weight of mica and not more than a total of the percentage listed below by dry weight of dust, clay, loam or silt when tested in accordance with Section 12 of AS 1141 "Methods of Sampling and Testing Aggregates".
    - coarse aggregates 2 %
    - high grade compaction sand 3 %
    - crushed rock dust, bedding sand and sand 5 %
- has a pH not less than 5.5 when tested in accordance with AS 1289.4.3.1; and
- meets the requirement of a salinity test and does not exceed 0.4 mS/cm when tested by use of a conductivity meter in accordance with American Public Health Association Standard Method 2510B "Standard Methods for Testing Water and Wastewater - Conductivity" carried out in a solution of soil and distilled water prepared in accordance with AS 1289.4.3.1 "Methods of Testing Soils for Engineering Purposes - Part 4 - Soil chemical tests - Determination of the pH value of a soil - Standard method".

2.2 Grading

Sieve Size (mm)	Required Percentage Passing for Each Class of Material						
	40 mm Coarse Aggregate	20 mm Coarse Aggregate	14 mm Coarse Aggregate	10 mm Coarse Aggregate	Crushed Rock Dust	Bedding Sand	Sand
75.0	100						
37.5	85-100						
26.5		100					
19.0	30-70	85-100	100				
13.2			85-100	100			
9.5	10-35	25-55	0-45	85-100	100		
4.75	0-5	0-10	0-5	0-20	80-100	100	
2.36		0-5		0-5	30-60	50-100	100
0.600					10-50	10-50	90-100
0.150					0-20	0-20	0-20
0.075	0-2	0-2	0-2	0-2	0-5	0-5	0-5

Sieve Size (mm)	High Grade Compaction Sand	
	Required Percentage Passing	Percentage Maximum Deviation
9.5	100	-
4.75	95 - 100	+ or - 5
2.36	90 - 100	+ or - 5
1.18	70 - 100	+ or - 5
0.600	40 - 70	+ or - 5
0.300	10 - 50	+ or - 5
0.150	1 - 7	+3 and - 0
0.075	0 - 3	-

3. SOURCE OF MATERIALS

Prior to delivery of any materials submit details of the source of all materials that will be used to meet quantity and quality requirements. If directed submit details of plant and methods of winning and mixing materials. Do not change the source or methods of winning or mixing without approval.

4. SAMPLING AND TESTING

4.1 Initial Sample

Prior to delivery of any material submit a representative sample of each class of material to be supplied. The size of sample and method of sampling shall be as applicable under AS 1141.3 "Methods of Sampling and Testing Aggregates - Sampling of aggregates and rock.".

Submit the sample in otherwise clean containers, such as plastic bags, which will not permit the loss of finer fractions. Do not submit samples in cement, hessian or flax bags. Affix a tag to each sample identifying the class of material, name of supplier, source of supply and the contract number if applicable.

4.2 Routine Sampling and Testing

Undertake routine sampling and testing at a frequency necessary to ensure that only materials meeting specified requirements are supplied. Submit test results if directed.

5. REJECTED MATERIAL

Remove all rejected material and replace it with material meeting requirements.

Material is to be rejected if a representative sample is found to be not in accordance with the requirements of this Standard Technical Specification or other specified requirements or if it is considered to be unsuitable due to segregation or contamination.

If rejection is based on testing by the Principal and other test data is available from a laboratory appropriately registered with the National Association of Testing Authorities (NATA) contradicting the grounds for rejection, then a further sample shall be taken and tested at a laboratory acceptable to both the supplier and the Principal. The material shall be accepted or rejected based on the testing of the further sample.

[END OF STS101]