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SCHEDULE FOR PROPERTIES AND AVAILABILITY OF STONES FOR CONSTRUCTION PURPOSES

PART III TAMIL NADU STATE

Section 3 Engineering Properties of Stone Aggregates

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SCHEDULE FOR PROPERTIES AND AVAILABILITY OF STONES FOR CONSTRUCTION PURPOSES

PART III TAMIL NADU STATE

Section 3 Engineering Properties of Stone Aggregates

0. FOREWORD

0.1 This Indian Standard (Part III/Sec 3) was adopted by the Indian Standards Institution on 29 February 1980, after the draft finalized by the Stones Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 Stones are available in large quantities in different parts of the country. To choose and utilize them for various purposes it is necessary to know their availability as well as their various physical properties. Accordingly this Indian Standard is formulated to cover such informations. It is hoped that with the publication of this standard it would be convenient for the users to know the location of various types of stone aggregates and it would also act as a guide for their proper selection depending upon their particular use. This standard will give general information to prospective builders who use stone and stone aggregates. The final acceptance of the materials in any work would, however be subject to the physical standards and other specifications and quality control requirements stipulated for individual works.

0.2.1 This standard is being published in parts, each part covering a state. For facility of compilation and use of the standard, each part is divided in three sections. Accordingly Part III covers Tamil Nadu State and is being issued in three sections.

0.3 The information contained in this Section is based on the information sent by the Public Works Department, Govt of Tamil Nadu and covers data collected up to the end of 1979. Further information as and when available will be issued as addendum to the standard.

0.4 In reporting the results of a test or analysis made in accordance with this standard, if the final value, observed or calculated is to be rounded off, it shall be done in accordance with IS:2-1960*.

*Rules for rounding off numerical values (*revised*).

1. SCOPE

1.1 This standard (Part III/Sec 3) covers the engineering properties of stone aggregates in Tamil Nadu State.

2. TEST RESULTS

2.1 The test results for various types of stone aggregates tested for some of the important properties according to relevant Indian Standards are given in Table 1.

TABLE 1 SCHEDULE OF CHARACTERISTICS OF STONE AGGREGATES — TAMIL NADU STATE

(*Clause* 2.1)

Sl No.	Location	Classification	Apparent Specific Gravity [IS:2386 (Part III)-1963*]	Water Absorption % [IS:2386 (Part III)-1963*]	Crushing Value % [IS:2386 (Part IV)-1963†]	Abrasion Value % [IS:2386 (Part IV)-1963†]	Load Required for Ten Percent Fines [IS:2386 (Part IV)-1963†]	Soundness by Na_2SO_4% Loss [IS:2386 (Part V)-1963‡]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	I. *RAMNAD DISTRICT*							
1.	Tiruvannamalai Quarry Venkatesapuram Village Srivilliputhur Taluk Tamanathapuram District	Charnockite	2·70	0·39	33·49	36·50	—	—
2.	Vairavanpatti Quarry Tiruppathur Taluk Ramanathapuram District	Charnockite	2·70	0·35	21·17	34·62	—	—
3.	Varichiyur quarry Sivaganga Taluk Ramanathapuram District	Biotite granite	2·65	0·50	26·28	39·55	—	—
	II. *TIRUNELVELI DISTRICT*							
4.	Kallidaikurichi quarry Manmuthar, Tirunelveli District	Charnockite	2·70	0·40	30·42	47·06	—	—
5.	Valiyamputhari quarry Tenkasi Taluk Tirunelveli District	Charnockite	2·75	0·15	30·26	25·38	—	—

*Methods of test for aggregates for concrete: Part III Specific gravity, density, voids, absorption and bulking.
†Methods of test for aggregates for concrete: Part IV Mechanical properties.
‡Methods of test for aggregates for concrete: Part V Soundness.

INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

Quantity	*Unit*	*Symbol*
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

Quantity	*Unit*	*Symbol*
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

Quantity	*Unit*	*Symbol*	*Definition*
Force	newton	N	1 N=1kg. m/s^2
Energy	joule	J	1 J=1 N.m
Power	watt	W	1 W=1 J/s
Flux	weber	Wb	1 Wb=1 V.s
Flux density	tesla	T	1 T=1 Wb/m^2
Frequency	hertz	Hz	1 Hz=1 c/s (s^{-1})
Electric conductance	siemens	S	1 S=1 A/V
Electromotive force	volt	V	1 V=1 W/A
Pressure, stress	pascal	Pa	1 Pa=1 N/m^2