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IS 7779-5-1 to 3 (1997): Schedule for Properties and Availability of Stones for Construction Purposes, Part 5: Andhra Pradesh State - Sections 1 to 3 [CED 6: Stones]

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IS 7779 (Part 5/Sec 1 to 3): 1997

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भारतीय मानक निर्माण कार्यों के लिए पत्थरों के गुणधर्म व उपलब्धता की अनुसूची भाग 5 आन्ध्र प्रदेश राज्य अनुभाग 1 से 3

## Indian Standard SCHEDULE FOR PROPERTIES AND AVAILABILITY OF \$TONES FOR CONSTRUCTION PURPOSES PART 5 ANDHRA PRADESH STATE

Sections 1 to 3

ICS 91.100.20

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BUREAU OF INDIAN STANDARDS MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG NEWDELHI 110002

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**Price Group** 7

#### FOREWORD

This Indian Standard (Part 5/ Sec 1 to 3) was adopted by the Bureau of Indian Standards after the draft finalized by Stones Sectional Committee had been approved by the Civil Engineering Division Council.

Stones are available in large quantities in different parts of the country. To choose and utilize them for various uses, it is necessary to know their availability as well as their physical properties. Accordingly this Indian Standard has been formulated to cover this information for the state of Andhra Pradesh. It is hoped that with the publication of this standard it will be convenient for the users to know the locations of various types of stones and will also act as a guide for their proper selection depending upon their end use.

The information contained in this standard is based on the data given by Andhra Pradesh Engineering Research Laboratory, Hyderabad.

This standard is published in parts, each part covering one state. For facility in compilation and use of the standard, each part is divided into three sections. Accordingly Part 5 covers Andhra Pradesh state and is containing three sections. Section 1 gives information on the availability of stones in the form of a map showing geological classifications and availability of stones; Section 2 covers engineering properties of building stones; and Section 3 covers engineering properties of stone aggregates.

The composition of the committee responsible for the preparation of this standard is given at Annex A.

## Indian Standard SCHEDULE FOR PROPERTIES AND AVAILABILITY OF STONES FOR CONSTRUCTION PURPOSES PART 5 ANDHRA PRADESH STATE

### Section 1 Availability of Stones

#### **1 SCOPE**

### 2 AVAILABILITY

This section covers availability on stones in Andhra Pradesh State for construction purposes.

The geological classification and availability of stones are shown in the map.

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Based upon Survey of India map with the permission of the Surveyor General of India. The terriforial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.

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## Indian Standard

## SCHEDULE FOR PROPERTIES AND AVAILABILITY OF STONES FOR CONSTRUCTION PURPOSES

### PART 5 ANDHRA PRADESH STATE

#### Section 2 Engineering Properties of Building Stones

1 SCOPE		IS No.	Title			
This section covers e stones in Andhra Pr	ngineering properties of building adesh.	1123 : 1975	Method of identification of natural building stones (first revision)			
The following Indian to this standard:	Standards are necessary adjuncts	1124 : 1974	Method of test for deter- mination of water absorption,			
IS No.	Title		apparent specific gravity and			
1121	Methods of test for deter		stones ( first revision )			
	properties of natural building stones	1126 : 1974	Method of test for deter- mination of durability of			
(Part 1): 1974	Compressive strength ( first revision )		natural building stones (first revision)			
( Part 2 ) : 1974	Transverse strength (first revision)	1706 : 1972	Method for determination of resistance to wear by abrasion			
( Part 4 ) : 1974	Shear strength (first revision)		of natural building stones (first revision)			
1122 : 1974	Methods of test for deter-	3 TEST RESULTS				
	mination of true specific gravity of natural building	The test results of building stones tested for some of the important properties according to relevant				

stones (first revision) Indian Standards are given in Table 1.

## Table 1 Schedule of Characteristics of Indian Building Stones (Andhra Pradesh State)

SI No.	Taluk	Village	Quarry	Geological Classifica tion	Engineer- ing Classifica tion	Colour ( IS 1123: 1975 )	Structure and Texture (IS 1123 : 1975)	Apparent Specific Gravity (IS 1124 : 1974)	Water Absorption, percent (IS 1124: 1974)	Compres- sive Stre- ngth in kg/cm <sup>2</sup> in Saturated Condition [ IS 1121 (Part 1) : 1974 ]	Transverse Strength in kg/cm <sup>2</sup> in Saturated Condition [ IS 1121 (Part 2) : 1974 ]	Shear Strength in kg/cm <sup>2</sup> in Saturated Condition [ IS 1121 (Part 4) : 1974 ]	Abrasion Value, Average Loss in Thickness in mm (IS 1706: 1972)	Durability Percent Loss (IS 1126 : 1974)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
I ANA	NTHAPUR	DISTRICT												
1. K	adiri	Gundlapenta	Puligundla	Alkali Granite	Granite	Whitish gray	Crystalline	2.64	0.50	1 360	217.0	136.0	0.899	0.025
2. K D	alyan urg	Mudigallu	Mudigallu	Khondalite	Khonda- lite	Light brown	Fine to medium grain	2.71	0.45	1 286	220	123	1.181	0.025
II EAS	T GODAV	ARI DISTRI	СТ											
3. R	ajahmundry	Kotheru	Kotheru	Basalt	Basalt	Dark gray	Hypidio morphic	2.77	0.60	1 515	177	298	1.411	0.266
4. Pi	rathipadu	Yeleshwar- am Rayava- ram (Hamlet)	East of Rayavaram	Basalt	Basalt	Dark gray to black	Medium grained	2.68	0.60	1 527	324	275	0.577	0.064
5. Pi	rathipadu	do	North of Rayavaram	Basalt	Basalt	Dark gray to black	Medium grained	2.69	0.70	1 541	354	304	0.642	0.042
III KH	AMMAM	DISTRICT												
6. Sa	athupally	Asupaka	Asupaka	Biotite Granite	Granite	Brown	Hypidio morphic medium grained	2.67	0.40	1 395	154	143	1.042	0.120

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	7.	Kanchi- kacherla	Donabanda	Donabanda	Nephelene	Syenite	Gray	Medium grained	2.69	0.80	1 060	276	315	0.550	0.053
	8.	Myla- varam-I	Konduru	Konduru	Gabbro	Gabbro	Dark gray	Crystalline	2.82	0.45	1 899	219	131	0.394	0.019
	9.	Myla- varam-II	Konduru	Konduru	Gabbro	Gabbro	Dark gray	Crystalline	2.81	0.50	1 897	210	129	0.436	0.016
	10.	Tiruvuru-I	Konduru (near Atra- pargadda)	Konduru	Charnoc- kite	Charno- ckite	Light gray	Medium grained	2.77	0.48	1 148	171	116	0.250	0.212
	11.	Tiruvuru-II	Gampala- gudem	Konduru	Charnoc- kite	Charno- ckite	Light gray	Medium grained	2.76	0.45	1 996	159	113	0.261	0.307
	V	манавоов	NAGAR DIS	STRICT											
	12.	Nagar Kurnool	Bijnapally	Bijnapally	Hornbl- ende Granite	Granite	Gray Pink	Hypidio- morphic	2.72	0.50	1 381	296	285	0.435	0.083
7	13.	Nagar Kurnool	Buddaram	Buddaram	do	do	do	do	2.73	0.50	1 412	308	288	0.418	0.081
	14.	Achampet	Hajipur	Hajipur	do	do	do	do	2.69	0.50	1 417	239	228	0.448	0.080
	15.	Wanaparthy	Kanch- revpally	Kanch- revpally	do	do	do	do	2:72	0.50	1 500	314	277	0.464	0.053
	VI	PRAKASHAN	N DISTRICT												
	16.	Kanigiri			Biotite Granite	Granite	Light Brown	Hypidio- morphic granular	2.66	0.5	927	216	116	0.354	0.932
	VII	RANGAREI	DDY DISTR	ICT											
	17.	Vikarabad-I			Ryolite	Granite	Light Pink	Crypto- crystalline	2.49	0.48	1 371	229	135	0.474	0.054
	18.	Vikarabad-II			Ryolite	Granite	Light Pink	Crypto- crystalline	2.46	0.50	1 354	227	132	0.529	0.062

IV KRISHNA DISTRICT

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## Indian Standard

## SCHEDULE FOR PROPERTIES AND AVAILABILITY OF STONES FOR CONSTRUCTION PUARPOSES

## **PART 5 ANDHRA PRADESH STATE**

### Section 3 Engineering Properties of Stones Aggregates

#### **1 SCOPE**

This section covers the engineering properties of stone aggregates in Andhra Pradesh.

### 2 **REFERENCES**

The following Indian Standards are necessary adjuncts to this standard:

IS No. Title

2386

Methods of test for aggregates for concrete:

IS No.	Title
(Part 3): 1963	Specific gravity, density, voids, absorption and bulking
(Part 4): 1963	Mechanical properties
(Part 5): 1963	Soundness

#### **3 TEST RESULTS**

The test results of stone aggregates tested for some of the important properties according to relevant Indian Standards are given in Table 2.

-	SI No.	Taluk	Village	Quarry	Classification	Apparant Specific Gravity [ IS 2386 ( Part 3 ) : 1963 ]	Water Absor- ption in percentage [ IS 2386 (Part 3) : 1963 ]	Crushing Value in Percentage [ IS 2386 (Part 4) : 1963 ]	Load Required for Ten Percent Fines in tonnes [ IS 2386 (Part 4) : 1963 ]	Impact Value in Percentage [ IS 2386 (Part 4) : 1963 ]	Abrasion Value in Percentage [ IS 2386 (Part 4) : 1963 ]	Soundness Percentage Loss [ IS 2386 (Part 5) : 1963 ]
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
I	AN	ANTHAPUR D	ISTRICT									
	1.	Kadiri	Gundiapenta	Puligun- dla	Alkali Granite	2.64	0.50	20.61	22.84	18.02	28.55	0.35
	2.	Kalyandurg	Mudigallu	Mudigallu	Khondalite	2.71	0.45	22.68	20.75	18.44	31.15	0.75
5 II	E	AST GODAVAI	RI DISTRICT									
	3.	Rajahmundry	Kotheru	Kotheru	Basalt	2.77	0.60	23.24	20.55	19.56	27.15	1.20
	4.	Prathiadu	Yeleshwaram Rayavaram (Hamlet)	East of Rayavaram	Basalt	2.68	0.60	16.12	25.37	18.59	27.95	1.37
	5.	Prathipadu	do	North of Rayavaram	Basalt	2.68	0.70	16.06	28.24	18.47	28.15	1.37
П	I K	HAMMAM Dİ	STRICT									
	6.	Sathupally	Asupaka	Asupaka	Biotite Granite	2.67	0.40	22.25	21.48	22.61	29.55	1.10
IV	K	RISHNA DIST	RICT									
	7.	Kanchika- cherla	Donabanda	Donabanda	Nephelene Syenite	2.69	0.80	21.30	21.83	18.20	28.42	0.53
	8.	Mylavaram-I	Konduru	Konduru	Gabbro	2.82	0.45	22.96	19.97	18.54	30.83	0.77
	9.	Mylavaram-II	Konduru	Konduru	Gabbro	2.81	0.50	21.94	19.30	17.88	30.67	0.72

## Table 2 Schedule of Characteristics of Stones Aggregates (Andhra Pradesh State)

(Clause 3)

10.	Tiruvaru-I	Konduru (near Atrapargadda	Konduru	Charnockite	2.77	0.48	21.11	22.24	17.42	27.40	0.60	
11.	Tiruvuru-II	Gampalagudem	Midduru	Charnockite	2.75	0.45	20.95	22.37	16.84	27.38	0.55	
V	V MAHABOOBNAGAR DISTRICT											
12.	Nagar Kurnool	Bijnapally	Bijnappally	Hornblende Granite	2.72	0.60	22.95	20.65	18.38	31.85	0.62	
13.	Nagar Kurnool	Buddaram	Buddaram	do	2.73	0.60	22.23	20.77	18.62	32.55	0.70	
14.	Achampet	Hajipur	Hajipur	do	2.69	0.80	22.97	20.77	18.47	31.65	0.70	
15.	Wanaparthy	Kanchrevpally	Kanchervpally	do	2.72	0.60	21.30	21.35	17.86	32.20	0.64	
VI	PRAKASAM D	ISTRICT										
16.	Kangiri			Biotite Granite	2.66	0.50	22.88	20.79	17.56	29.22	0.78	
VII	RANGAREDDY	DISTRICT										
17.	Vikarabad-I			Ryolite	2.49	0.48	22.22	21.39	17.42	28.33	0.66	
18.	Vikarabad-II	_		Ryolite	2.46	0.50	20.99	22.36	17.53	28.10	0.62	

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#### ANNEX A

#### (Foreword)

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#### (Continued from Page 12)

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