



"Technocab Cables"

Power & Control cables

LT XLPE

[IS :7098 PART-I/1988]

*Dimensions, Weights and
Electrical Characteristics*

TECHNOCAB CABLES"

**TABLE NO. 1
SINGLE CORE [1 Core]**

Dimensions, Weights and Electrical Characteristics.

1100 V, Aluminium Conductor, XLPE Insulated, Unarmoured (A2XY) and Armoured (A2XWay & A2XFaY) Conforming to IS:7098 [Part-I]

Nominal Area Of Conductor	UNARMoured CABLES				ARMoured CABLES								
	A2XY				SINGLE LAYER – WIRE [A2XWay]					SINGLE LAYER – STRIP [A2XFaY]			
	Nominal Thickness of Insulation	Nominal Thickness of Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Thickness of Insulation	Nominal Diameter of Armour Wire	Minimum Thickness of Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Diameter of Armour Strip	Minimum Thickness of Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable
Sq.mm	mm	mm	mm	Kg/Km	mm	mm	mm	mm	Kg/Km	Mm	mm	mm	Kg/Km
6	0.7	1.8	8.5	70	1.0	1.40	1.24	10.5	170	-	-	-	-
10	0.7	1.8	9.5	80	1.0	1.40	1.24	12.0	180	-	-	-	-
16	0.7	1.8	11.0	110	1.0	1.40	1.24	13.5	210	-	-	-	-
25	0.9	1.8	12.5	150	1.2	1.40	1.24	15.5	260	-	-	-	-
35	0.9	1.8	13.5	180	1.2	1.40	1.24	16.5	310	-	-	-	-
50	1.0	1.8	15.0	230	1.3	1.40	1.24	17.5	360	-	-	-	-
70	1.1	1.8	16.5	300	1.4	1.40	1.24	19.5	450	-	-	-	-
95	1.1	1.8	18.5	360	1.4	1.60	1.40	22.5	550	0.80	1.40	21.0	520
120	1.2	1.8	20.0	460	1.5	1.60	1.40	24.0	680	0.80	1.40	22.0	610
150	1.4	2.0	22.5	580	1.7	1.60	1.40	25.5	810	0.80	1.40	24.0	730
185	1.6	2.0	24.5	700	1.9	1.60	1.40	27.5	940	0.80	1.40	26.0	850
240	1.7	2.0	27.0	880	2.0	1.60	1.40	30.5	1150	0.80	1.40	28.5	1050
300	1.8	2.0	29.0	1070	2.1	1.60	1.56	33.0	1400	0.80	1.56	31.5	1290
400	2.0	2.2	33.0	1370	2.4	2.00	1.56	37.5	1800	0.80	1.56	35.0	1600
500	2.2	2.2	36.5	1660	2.6	2.00	1.56	41.0	2130	0.80	1.56	38.5	1910
630	2.4	2.2	40.5	2100	2.8	2.00	1.72	45.5	2670	0.80	1.72	43.0	2420
800	2.6	2.4	46.0	2670	3.1	2.00	1.88	51.0	3320	0.80	1.88	48.5	3040
1000	2.8	2.6	50.5	3310	3.3	2.50	2.04	56.5	4170	0.80	1.88	53.0	3670

"TECHNOCAB CABLES"

**TABLE NO. 2
TWO CORE [2 Core]**

Dimensions, Weights and Electrical Characteristics.

1100 V, Aluminium Conductor, XLPE Insulated, Unarmoured (A2XY) and Armoured (A2XWy & A2XFY) Conforming to IS:7098 [Part-I]

Nominal Area Of Conductor	UNARMoured CABLES					ARMoured CABLES							
	A2XY					SINGLE LAYER – WIRE [A2XWY]				SINGLE LAYER – STRIP [A2XFY]			
	Nominal Thickness of Insulation	Minimum Thickness of Inner Sheath	Nominal Thickness of Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Diameter of Armour Wire	Minimum Thickness of Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Diameter of Armour Strip	Minimum Thickness of Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable
Sq.mm	mm	mm	mm	mm	Kg/Km	mm	mm	Mm	Kg/Km	mm	mm	mm	Kg/Km
6	0.7	0.3	1.8	15.0	150	1.40	1.24	16.5	480	-	-	-	-
10	0.7	0.3	1.8	15.5	170	1.40	1.24	18.0	570	-	-	-	-
16	0.7	0.3	1.8	18.5	220	1.40	1.40	21.5	740	-	-	-	-
25	0.9	0.3	2.0	19.0	320	1.60	1.40	22.0	830	0.8	1.40	20.0	650
35	0.9	0.3	2.0	21.0	390	1.60	1.40	23.5	950	0.8	1.40	22.0	750
50	1.0	0.3	2.0	23.0	480	1.60	1.40	26.0	1110	0.8	1.40	24.50	890
70	1.1	0.3	2.0	26.5	630	1.60	1.56	29.5	1370	0.8	1.56	27.5	1090
95	1.1	0.4	2.2	29.5	820	2.00	1.56	33.0	1840	0.8	1.56	30.5	1360
120	1.2	0.4	2.2	32.5	990	2.00	1.56	36.0	2120	0.8	1.56	33.5	1590
150	1.4	0.4	2.2	35.5	1190	2.00	1.72	39.5	2490	0.8	1.72	37.0	1900
185	1.6	0.5	2.4	40.0	1490	2.00	1.88	44.0	2920	0.8	1.72	41.0	2280
240	1.7	0.5	2.6	44.5	1900	2.50	2.04	49.5	3900	0.8	1.88	45.5	2530
300	1.8	0.6	2.8	49.0	2330	2.50	2.20	54.0	4550	0.8	2.04	50.5	3330
400	2.0	0.6	3.0	55.0	2940	2.50	2.36	59.5	5410	0.8	2.36	56.50	4100
500	2.2	0.7	3.4	61.5	3680	3.15	2.68	67.5	7120	0.8	2.52	62.5	4950
630	2.4	0.7	3.6	68.5	4670	3.15	2.84	75.0	8500	0.8	2.68	69.5	6100

"TECHNOCAB CABLES"

**TABLE NO. 3
THREE CORE [3 Core]**

Dimensions, Weights and Electrical Characteristics.

1100 V, Aluminium Conductor, XLPE Insulated, Unarmoured (A2XY) and Armoured (A2XWy & A2XFY) Conforming to IS:7098 [Part-I]

Nominal Area Of Conductor	UNARMoured CABLES					ARMoured CABLES							
	A2XY					SINGLE LAYER – WIRE [A2XWY]				SINGLE LAYER – STRIP [A2XFY]			
	Nominal Thickness of Insulation	Minimum Thickness of Inner Sheath	Nominal Thickness of Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Diameter of Armour Wire	Minimum Thickness of Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Diameter of Armour Strip	Minimum Thickness of Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable
Sq.mm	mm	mm	mm	mm	Kg/Km	mm	mm	mm	Kg/Km	mm	mm	mm	Kg/Km
6	0.7	0.3	1.8	15.0	160	1.40	1.24	17.0	520	-	-	-	-
10	0.7	0.3	1.8	16.5	210	1.40	1.24	18.5	630	-	-	-	-
16	0.7	0.3	1.8	17.0	280	1.60	1.40	20.5	780	0.8	1.40	18.5	590
25	0.9	0.3	2.0	21.0	410	1.60	1.40	23.5	1000	0.8	1.40	22.0	790
35	0.9	0.3	2.0	22.5	510	1.60	1.40	25.5	1150	0.8	1.40	24.0	930
50	1.0	0.3	2.0	25.5	630	1.60	1.56	28.5	1360	0.8	1.40	26.5	1090
70	1.1	0.4	2.2	29.5	870	2.00	1.56	33.0	1890	0.8	1.56	30.5	1400
95	1.1	0.4	2.2	33.0	1120	2.00	1.56	36.5	2240	0.8	1.56	34.0	1720
120	1.2	0.4	2.2	36.0	1360	2.00	1.72	40.0	2640	0.8	1.56	37.0	2030
150	1.4	0.5	2.4	40.0	1680	2.00	1.88	44.0	3100	0.8	1.72	41.5	2430
185	1.6	0.5	2.6	44.5	2090	2.50	2.04	49.5	4040	0.8	1.88	46.0	2930
240	1.7	0.6	2.8	50.0	2690	2.50	2.20	55.0	4890	0.8	2.04	51.5	3650
30	1.8	0.6	3.0	55.0	3290	2.50	2.36	60.0	5740	0.8	2.20	56.5	4360
400	2.0	0.7	3.2	62.0	4160	3.15	2.68	68.5	7660	0.8	2.52	63.5	5440
500	2.2	0.7	3.6	69.0	5200	3.15	2.84	75.0	8980	0.8	2.68	70.0	6590
630	2.4	0.7	3.8	77.0	6630	4.00	3.00	85.0	11970	0.8	2.84	78.5	8190

"TECHNOCAB CABLES"

**TABLE NO. 4
THREE & HALF CORE [3.5 Core]**

Dimensions, Weights and Electrical Characteristics.

1100 V, Aluminium Conductor, XLPE Insulated, Unarmoured (A2XY) and Armoured (A2XW_y & A2XF_y) Conforming to IS:7098 [Part-I]

Nominal Area Of Conductor		Nominal Thickness of Insulation		Minimum Thickness of Inner Sheath	UNARMoured CABLES			ARMoured CABLES							
Power Core	Neutral Core	Power Core	Neutral Core		A2XY			SINGLE LAYER – WIRE [A2XW _y]				SINGLE LAYER – STRIP [A2XF _y]			
					Nominal Thickness of Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Diameter of Armour Wire	Minimum Thickness of Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Diameter of Armour Strip	Minimum Thickness of Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable
Sq.mm	Sqmm	mm	mm	mm	mm	mm	Kg/Km	mm	mm	mm	Kg/Km	mm	mm	mm	Kg/Km
25	16	0.9	0.7	0.3	2.2	22.5	480	1.60	1.40	25.0	1110	0.80	1.40	23.5	890
35	16	0.9	0.7	0.3	2.0	24.5	580	1.60	1.40	27.5	1280	0.80	1.40	26.0	1030
50	25	1.0	0.9	0.3	2.0	28.0	740	1.60	1.56	31.0	1530	0.80	1.40	29.0	1460
70	35	1.1	0.9	0.4	2.2	32.5	1000	2.00	1.56	36.0	2130	0.80	1.56	33.5	1600
95	50	1.1	1.0	0.4	2.2	34.5	1290	2.00	1.56	38.0	2540	0.80	1.56	35.5	1970
120	70	1.2	1.1	0.4	2.2	38.0	1600	2.00	1.72	42.0	3020	0.80	1.72	39.5	2390
150	70	1.4	1.1	0.5	2.4	43.0	1930	2.00	1.88	47.0	3510	0.80	1.72	44.0	2770
185	95	1.6	1.1	0.5	2.6	46.5	2420	2.50	2.04	51.5	4580	0.80	1.88	47.5	3360
240	120	1.7	1.2	0.6	2.8	52.5	3100	2.50	2.20	57.5	5550	0.80	2.04	54.0	4190
300	150	1.8	1.4	0.6	3.0	58.5	3800	2.50	2.36	63.5	6490	0.80	2.20	59.5	4990
400	185	2.0	1.6	0.7	3.4	65.5	4840	3.15	2.68	72.0	8660	0.80	2.52	67.0	6220
500	240	2.2	1.7	0.7	3.6	74.5	6020	3.15	2.84	81.0	10230	0.80	2.68	75.5	7570
630	300	2.4	1.8	0.7	4.0	84.5	7710	4.00	3.00	92.0	13570	0.80	3.00	85.5	9450

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**TABLE NO. 5
FOUR CORE [4 Core]**

Dimensions, Weights and Electrical Characteristics.

1100 V, Aluminium Conductor, XLPE Insulated, Unarmoured (A2XY) and Armoured (A2XWy & A2XFY) Conforming to IS:7098 [Part-I]

Nominal Area Of Conductor	UNARMoured CABLES					ARMoured CABLES							
	A2XY					SINGLE LAYER – WIRE [A2XWY]				SINGLE LAYER – STRIP [A2XFY]			
	Nominal Thickness of Insulation	Minimum Thickness of Inner Sheath	Nominal Thickness of Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Diameter of Armour Wire	Minimum Thickness of Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable	Nominal Diameter of Armour Strip	Minimum Thickness of Outer Sheath	Approx. Overall Diameter of Cable	Approx. Weight of Cable
Sq.mm	mm	mm	mm	mm	Kg/Km	mm	mm	mm	Kg/Km	mm	mm	mm	Kg/Km
6	0.7	0.3	1.8	16.0	190	1.40	1.24	18.5	590	-	-	-	-
10	0.7	0.3	1.8	17.5	250	1.40	1.40	20.5	710	-	-	-	-
16	0.7	0.3	1.8	19.0	350	1.60	1.40	22.5	930	0.8	1.40	20.5	720
25	0.9	0.3	2.0	23.5	520	1.60	1.40	26.0	1180	0.8	1.40	24.5	950
35	0.9	0.3	2.0	25.5	650	1.60	1.40	28.5	1390	0.8	1.40	26.5	1120
50	1.0	0.3	2.0	29.0	810	1.60	1.56	32.0	1640	0.8	1.56	30.5	1360
70	1.1	0.4	2.2	33.5	1110	2.00	1.56	37.0	2260	0.8	1.56	34.5	1730
95	1.1	0.4	2.2	37.5	1430	2.00	1.72	41.5	2760	0.8	1.56	38.5	2130
120	1.2	0.5	2.4	42.0	1790	2.00	1.88	45.5	3210	0.8	1.72	43.0	2580
150	1.4	0.5	2.6	46.5	2210	2.50	2.04	51.5	4240	0.8	1.88	47.5	3080
185	1.6	0.5	2.8	51.5	2750	2.50	2.20	56.5	5020	0.8	2.04	52.5	3730
240	1.7	0.6	3.0	58.0	3530	2.50	2.36	63.00	6100	0.8	2.20	59.0	4660
30	1.8	0.7	3.2	64.0	4330	3.15	2.52	70.5	7880	0.8	2.36	65.0	5590
400	2.0	0.7	3.6	72.0	5510	3.15	2.84	78.0	8460	0.8	2.68	73.0	6950
500	2.2	0.7	3.8	79.5	6830	4.00	3.00	87.5	12350	0.8	2.84	81.0	8430
630	2.4	0.7	4.0	89.5	8700	4.00	3.00	97.5	14840	0.8	3.00	90.5	10510

"TECHNOCAB CABLES"

**TABLE NO. 6
CURRENT RATING [ALUMINIUM CONDUCTOR]**

1100 V, Aluminium Conductor, XLPE Insulated, Unarmoured (A2XY) and Armoured (A2XWy & A2XFY) Conforming to IS:7098 [Part-I]

Nominal Area Of Conductor	CABLES IN GROUND					CABLES IN AIR				
	Single Core Cables			Two Core Cables	Three, Three and Half & Four Core Cables	Single Core Cables		Two Cores Cables	Three, Three and Half & Four Core Cables	
	Two Cables		Three Cables			Two Cables				Three Cables
	AC	DC			AC	DC				
Sqmm	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps
4	42	42	36	43	34	34	34	31	39	31
6	52	52	44	55	43	43	43	39	50	40
10	69	69	59	71	57	60	60	53	67	53
16	90	90	76	91	73	82	82	73	88	70
25	116	116	96	120	94	108	108	98	117	96
35	139	139	114	143	113	136	136	121	145	117
50	162	162	135	167	133	163	163	150	176	142
70	199	199	166	204	164	208	208	187	221	179
95	241	241	198	245	196	258	258	230	271	221
120	273	273	225	278	223	303	303	268	316	257
150	305	305	253	315	249	348	348	309	362	292
185	347	347	286	356	282	407	407	360	420	337
240	407	407	332	407	326	488	488	433	497	399
300	458	463	376	463	367	569	569	501	578	455
400	518	528	431	523	418	669	678	596	678	530
500	592	602	490	592	470	786	805	693	786	612
630	666	694	557	676	529	922	958	514	913	707
800	750	796	632	-	-	1067	1130	968	-	-
1000	833	907	701	-	-	1220	1329	1102	-	-

"TECHNOCAB CABLES"

**TABLE NO. 7
CURRENT RATING [COPPER CONDUCTOR]**

1100 V, Copper Conductor, XLPE Insulated, Unarmoured and Armoured Conforming to IS:7098 [Part-I]

Nominal Area Of Conductor	CABLES IN GROUND					CABLES IN AIR				
	Single Core Cables			Two Core Cables	Three, Three and Half & Four Core Cables	Single Core Cables			Two Cores Cables	Three, Three and Half & Four Core Cables
	Two Cables		Three Cables			Two Cables		Three Cables		
	AC	DC		AC	DC					
Sqmm	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps
1.5	31	31	27	33	25	25	25	22	29	22
2.5	41	41	36	43	34	33	33	29	39	30
4	54	54	46	56	44	44	44	40	51	40
6	68	68	57	71	55	55	55	51	64	51
10	89	89	76	92	73	80	80	71	88	70
16	116	116	97	116	97	104	104	95	113	90
25	148	148	125	152	125	139	139	126	153	112
35	181	181	153	180	148	172	172	158	186	148
50	213	213	181	218	175	213	213	194	226	181
70	259	259	217	264	213	271	271	249	284	230
95	310	310	264	314	254	335	335	307	348	284
120	352	352	296	357	292	389	393	357	402	330
150	393	397	333	403	325	447	452	411	461	375
185	449	449	375	453	366	524	524	479	533	434
240	518	527	434	518	421	623	632	569	633	515
300	583	593	490	583	472	722	741	659	732	588
400	657	685	556	658	528	850	877	769	841	677
500	731	778	620	730	583	976	1031	877	967	767
630	823	897	695	-	-	1130	1229	1013	-	-
800	907	1027	758	-	-	1284	1464	1148	-	-

"TECHNOCAB CABLES"

**TABLE NO. 8
CURRENT RATING [COPPER CONDUCTOR]**

1100 V, Copper Conductor, XLPE Insulated, Unarmoured and Armoured Conforming to IS:7098 [Part-I]

Numbers Of Cores	Nominal Area of Conductor [1.50 Sqmm]		Nominal Area of Conductor [2.50 Sqmm]	
	In Ground	In Air	In Ground	In Air
No.	Amps	Amps	Amps	Amps
2	33	29	43	39
3	25	22	34	30
4	25	22	34	30
5	24	21	31	28
6	22	19	29	26
7	21	18	27	25
8	20	18	26	24
9	19	17	25	22
10	18	16	24	21
12	17	15	22	20
14	16	14	21	19
16	16	14	20	18
19	15	13	19	17
21	14	12	18	16
24	13	12	17	16
27	13	11	16	15
30	12	11	16	14
37	11	10	15	13
44	11	9	14	12
52	10	9	13	12
61	9	8	12	11

Continuous Conductor Rating given are based on the following assumptions:-

1. Max. Conductor temperature for : 90° C
Continuous operating :-
2. Ambient air temp [Min/Max] : 40° C / 85° C
3. Thermal resistivity of Soil : 150° C cm/watt
4. Thermal resistivity of XLPE : 350° C cm/watt
5. Depth of Laying [to the highest : 75 cm
Point of the cable laid direct in the
Ground or to the top surface of
The duct]
6. Minimum Bending Radius : 12 x Dia of Cables
7. Max. Conductor temperature : 250° C
During Short Circuit
8. Method of Installation
A} Single Core cables : a] Two Cables in horizontal touching
b] Three Cables in trefoil touching
B} Multi Core Cables : Installed Singly
9. In case of Control Cables all cores are assumed to be carrying full load current.

"TECHNOCAB CABLES"

TABLE NO. 9
SHORT CIRCUIT RATING
Of Conductor for one Second duration [Kilo Amps]

Nominal Area Of Conductor Sqmm	Copper	Aluminium
2.5	0.36	-
4	0.57	0.38
6	0.86	0.57
10	1.40	0.94
16	2.30	1.50
25	3.60	2.40
35	5.00	3.30
50	7.10	4.70
70	10.00	6.60
95	13.60	9.00
120	17.10	11.30
150	21.40	14.20
185	26.40	17.50
240	34.30	22.60
300	42.90	28.30
400	57.10	37.70
500	71.40	47.20
630	90.00	59.40
800	114.30	75.50
1000	142.90	94.30

"TECHNOCAB CABLES"

TABLE NO. 10
CONDUCTOR RESISTANCE
Max. D. C. Resistance and Approx. A. C. Resistance

Nominal Area Of Conductor Sqmm	Max. D. C Resistance		Approx. A. C. Resistance	
	Plain Copper	Aluminium	Plain Copper	Aluminium
	At 20° C	At 20° C	At 90° C	At 90° C
1.5	12.10	18.10	15.50	23.05
2.5	7.40	12.10	9.50	15.30
4	4.61	7.41	5.91	9.50
6	3.08	4.61	3.95	5.91
10	1.83	3.08	2.35	3.95
16	1.15	1.91	1.47	2.45
25	0.727	1.20	0.932	1.539
35	0.524	0.868	0.672	1.113
50	0.387	0.641	0.496	0.822
70	0.268	0.443	0.343	0.568
95	0.193	0.320	0.247	0.410
120	0.153	0.253	0.196	0.325
150	0.124	0.206	0.159	0.265
185	0.0991	0.164	0.128	0.212
240	0.0754	0.125	0.0977	0.162
300	0.0601	0.100	0.0781	0.130
400	0.0470	0.0778	0.0616	0.102
500	0.0366	0.0605	0.0490	0.081
630	0.283	0.0469	0.0386	0.064
800	0.0221	0.0367	0.0317	0.0526
1000	0.176	0.0291	0.0265	0.0438

"TECHNOCAB CABLES"

**TABLE NO. 11
REACTANCE**

Approx. Reactance at 50 Hz [Ohms/Km] 1.1 Kv XLPE Cables

Nominal Area	XLPE CABLES		
	Single Core		Multicore
	Unarmoured	Armoured	
Sqmm	Unarmoured	Armoured	
1.5	0.155	-	0.107
2.5	0.142	-	0.0985
4	0.132	-	0.0927
6	0.123	-	0.0884
10	0.114	0.134	0.0837
16	0.108	0.125	0.0808
25	0.103	0.120	0.0805
35	0.0986	0.114	0.0783
50	0.0937	0.108	0.0750
70	0.090	0.102	0.0740
95	0.0865	0.100	0.724
120	0.0841	0.0968	0.0712
150	0.0839	0.0941	0.0716
185	0.0836	0.0932	0.0718
240	0.0813	0.0900	0.0710
300	0.0795	0.0881	0.0705
400	0.0787	0.0873	0.0704
500	0.0779	0.0859	0.0702
630	0.0765	0.0843	0.0698
800	0.0755	0.0826	-
1000	0.0752	0.0829	-

"TECHNOCAB CABLES"

**TABLE NO. 12
CAPACITANCE**

Approx. Capacitance [Microfrads/Km] 1.1 Kv XLPE Cables

Nominal Area Of Conductor	XLPE CABLES			
	Single Core		Two Core	Three, Three and Half & Four Core Cables
	Unarmoured	Armoured		
Sqmm	Unarmoured	Armoured		
1.5	0.19	-	0.051	0.15
2.5	0.24	-	0.058	0.18
4	0.29	-	0.065	0.22
6	0.34	-	0.071	0.25
10	0.43	0.32	0.081	0.31
16	0.51	0.38	0.088	0.36
25	0.49	0.38	0.089	0.41
35	0.57	0.44	0.096	0.47
50	0.58	0.46	0.098	0.50
70	0.63	0.51	0.10	0.53
95	0.73	0.59	0.11	0.61
120	0.74	0.61	0.11	0.63
150	0.73	0.61	0.11	0.60
185	0.69	0.59	0.11	0.60
240	0.74	0.64	0.11	0.63
300	0.80	0.69	0.12	0.67
400	0.83	0.70	0.12	0.67
500	0.83	0.71	0.12	0.69
630	0.87	0.75	0.11	0.73
800	0.92	0.78	-	-
1000	0.94	0.81	-	-