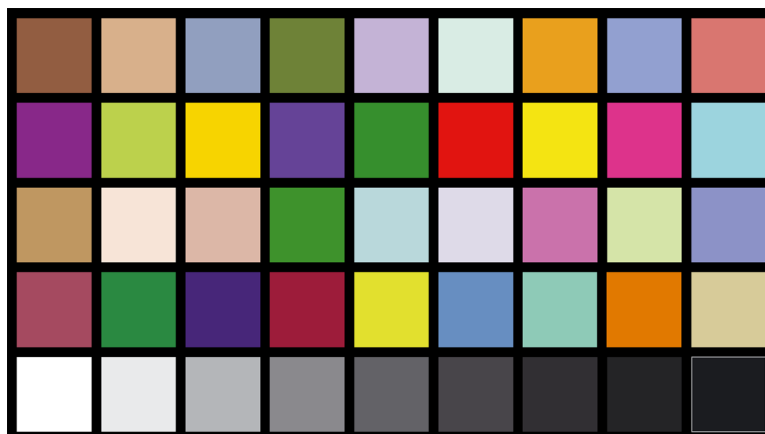




CERTIFICATE

HDTV COLOR RENDITION TEST CHART

TRANSPARENT



The chart consists of 36 color patches and 9-step gray scale. Besides the primary and secondary colors (blue, green, red, yellow, purple and cyan) the test chart contains mainly colors, which are critical in reproduction, e.g. dark and light skin tones, foliage, blue sky, orange, violet and others. The colorimetric reports of the 36 colors are shown on the following page.

The 9-step gray scale is graduated as follows:

Patch	Density	Transmission in %
37	0.00	100
38	0.06	88
39	0.20	63
40	0.36	44
41	0.55	28
42	0.81	16
43	1.15	7
44	1.65	2
45	> 3.00	0

The density is based on the 1st step of the gray scale.

Date

Some of the filter foils used are not fade less, especially when exposed to sunlight (ultra violet light). We therefore recommend to store the chart in the folder or case when not in use. We also recommend and offer a recalibration of the chart after 3 years of regular use.


**Colorimetric data TE226 – transparency
standard illuminant D65**

Patch	Color	X	Y	Z	x	y	L	a	b
1	dark skin	0,134	0,118	0,092	0,389	0,344	44,368	14,633	10,358
2	light skin	0,403	0,378	0,333	0,362	0,339	71,182	14,227	9,846
3	blue sky	0,160	0,186	0,288	0,252	0,294	48,049	-9,422	-14,158
4	foliage	0,090	0,153	0,053	0,303	0,519	36,789	-40,157	34,258
5	blue flower	0,452	0,415	0,749	0,279	0,257	74,511	17,291	-27,444
6	bluish green	0,440	0,584	0,659	0,262	0,347	73,765	-30,909	-2,074
7	orange	0,421	0,346	0,071	0,503	0,412	72,450	30,383	59,700
8	purplish blue	0,234	0,189	0,351	0,303	0,244	56,754	26,621	-22,347
9	moderate red	0,372	0,264	0,190	0,450	0,320	68,877	44,931	16,529
10	purple	0,463	0,635	0,294	0,332	0,456	75,242	-36,461	42,583
11	yellow green	0,462	0,520	0,166	0,402	0,453	75,203	-9,021	53,946
12	orange yellow	0,259	0,209	0,241	0,365	0,295	59,162	27,316	-2,268
13	blue	0,101	0,045	0,430	0,175	0,078	38,944	58,717	-75,485
14	green	0,116	0,252	0,065	0,268	0,582	41,505	-67,956	48,194
15	red	0,314	0,158	0,023	0,635	0,320	64,232	75,292	53,267
16	yellow	0,484	0,574	0,046	0,438	0,520	76,616	-16,264	96,538
17	magenta	0,400	0,190	0,465	0,379	0,180	70,949	87,120	-35,503
18	cyan	0,476	0,576	0,910	0,242	0,294	76,099	-19,026	-22,019
19		0,240	0,236	0,152	0,382	0,376	57,359	7,040	19,916
20		0,404	0,375	0,317	0,369	0,342	71,247	15,376	11,749
21		0,392	0,361	0,307	0,370	0,341	70,356	16,246	11,286
22		0,134	0,304	0,090	0,254	0,576	44,340	-76,103	47,448
23		0,376	0,458	0,599	0,262	0,319	69,132	-18,348	-9,785
24		0,562	0,553	0,869	0,283	0,279	81,378	9,422	-21,391
25		0,395	0,252	0,053	0,565	0,360	70,595	57,616	53,341
26		0,327	0,423	0,429	0,277	0,359	65,251	-25,103	3,542
27		0,180	0,135	0,621	0,192	0,144	50,634	30,565	-63,217
28		0,142	0,105	0,113	0,395	0,291	45,622	29,794	0,253
29		0,158	0,106	0,546	0,195	0,131	47,803	38,620	-64,328
30		0,183	0,094	0,662	0,195	0,100	50,935	61,532	-78,682
31		0,283	0,137	0,139	0,507	0,245	61,490	76,172	2,471
32		0,734	0,795	0,491	0,364	0,393	90,444	-4,344	31,915
33		0,145	0,166	0,438	0,194	0,221	46,035	-7,191	-37,847
34		0,025	0,084	0,085	0,130	0,433	18,564	-69,860	2,191
35		0,563	0,474	0,195	0,457	0,385	81,417	29,966	43,246
36		0,389	0,416	0,299	0,353	0,377	70,150	-1,918	19,373

All values calculated from the colorimetric measurement results (CIE-XYZ values) for the ITU Rec. 709.
The brightness is related to the picture white of patch 37 (=100% transmission).