



Overview

Product name	TE226 V2
Principle	Transparent color rendition test chart for HDTV cameras. In addition to the primary and secondary colors known from the well-known "ColorChecker", the test chart contains mainly the colors, which are critical in reproduction.

Features

Color patches

Type/s of pattern	<p>45 patches arranged in 5 rows with 9 patches each</p> <ul style="list-style-type: none"> • 30 colors which are critical in reproduction, e.g. dark and light skin tones, foliage, blue sky, orange, violet and others • 6 color patches with primary and secondary colors as blue, green, red, yellow, purple and cyan • 9-step gray scale 																								
Color values	<p>Individually measured (default color values 20180404). Values are provided in a separate Acceptance Protocol. All default values are given at the end of this data sheet.</p>																								
Size of a single patch	<table border="1"> <thead> <tr> <th colspan="2"></th> <th colspan="2">4:3</th> <th colspan="2">16:9</th> </tr> <tr> <th colspan="2"></th> <th>W [mm]</th> <th>H [mm]</th> <th>W [mm]</th> <th>H [mm]</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>D280</td> <td>-</td> <td>-</td> <td>27.0</td> <td>27.0</td> </tr> <tr> <td><input type="checkbox"/></td> <td>other</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			4:3		16:9				W [mm]	H [mm]	W [mm]	H [mm]	<input type="checkbox"/>	D280	-	-	27.0	27.0	<input type="checkbox"/>	other				
		4:3		16:9																					
		W [mm]	H [mm]	W [mm]	H [mm]																				
<input type="checkbox"/>	D280	-	-	27.0	27.0																				
<input type="checkbox"/>	other																								
Surface finish	<p>The color foils of transparent charts (and, in rare cases, Munsell charts) may show scratches or streaks. This does not affect the test chart's function in any way as the scratches/streaks are not visible under normal illumination geometry. We also recommend recording the color chart slightly out of focus to obtain a stable average value in the result.</p>																								

General description hardware

Type	transmissive (D chart)
Aspect ratio	16:9 <input type="checkbox"/> other: _____



Chart size [W x H x D]		W [mm]	H [mm]	D [mm]	
	<input type="checkbox"/> D280	360	280	4.6	
	<input type="checkbox"/> other				
Picture size [W x H]		4:3		16:9	
		W [mm]	H [mm]	W [mm]	H [mm]
	<input type="checkbox"/> D280	-	-	280.0	157.5
	<input type="checkbox"/> other				
Material	different transparent foils				
Mounting	embedded between metal frames				
Edge protection	fabric tape				
Service life	<p>transparent color foils 1 years</p> <p>For color targets please check annually if a new reference measurement is necessary. Some of the filter foils used for transparent charts 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.</p> <p>We also recommend and offer a recalibration of the chart after 3 years of regular use.</p>				
Scope of delivery	test chart, stable cardboard envelope (D charts)				

Miscellaneous

Evaluation / Assessment	supported by iQ-Analyzer Color Module
Illumination	It is recommended to test this chart under a continuous spectrum. Typical white LED spectra are not suited for color tests in general.
Standards	Metamorfoze Guideline (Archiving)
Accessoires	chart case
Terms & Conditions	image-engineering.de/terms-and-conditions



Default Color values D chart (transmissive)

Patch	Name	CIE XYZ_D50			CIE xy_D50		CIE Lab_D50			Optical density	Transmission
		X	Y	Z	x	y	L	a	b		
A1	Dark skin	14,58	12,51	8,65	0,41	0,35	42,01	17,60	14,05	-	-
B1	Light skin	54,40	49,35	37,85	0,38	0,35	75,67	20,01	17,42	-	-
C1	Blue sky	15,34	17,61	30,46	0,24	0,28	49,02	-8,02	-18,71	-	-
D1	Foliage	7,14	12,41	3,20	0,31	0,55	41,85	-38,42	38,00	-	-
E1	Blue flower	49,31	45,51	85,69	0,27	0,25	73,23	17,16	-30,81	-	-
F1	Bluish green	41,71	57,74	67,46	0,25	0,35	80,59	-36,40	-3,96	-	-
A2	Orange	47,89	37,39	6,82	0,52	0,41	67,57	37,63	64,66	-	-
B2	Purplish blue	18,23	18,27	64,25	0,18	0,18	49,83	4,60	-54,26	-	-
C2	Moderate red	40,32	28,32	18,75	0,46	0,32	60,17	47,35	20,06	-	-
D2	Purple	13,53	8,25	38,88	0,22	0,14	34,49	43,46	-54,84	-	-
E2	Yellow green	60,19	82,73	33,24	0,34	0,47	92,89	-40,01	53,08	-	-
F2	Orange yellow	53,34	45,59	8,43	0,50	0,42	73,28	27,59	68,69	-	-
A3	Blue	8,60	3,75	45,32	0,15	0,07	22,84	57,04	-82,37	-	-
B3	Green	9,97	23,31	6,40	0,25	0,59	55,39	-71,87	45,33	-	-
C3	Red	37,11	19,08	2,55	0,63	0,32	50,78	77,58	57,92	-	-
D3	Yellow	55,78	63,14	5,06	0,45	0,51	83,51	-10,33	99,65	-	-
E3	Magenta	43,54	21,44	52,53	0,37	0,18	53,43	86,20	-37,16	-	-
F3	Cyan	47,09	59,26	102,19	0,23	0,28	81,43	-24,31	-27,83	-	-
A4	White	95,05	100,00	108,88	0,31	0,33	100,00	0,00	0,00	0,00	100,00
B4	Neutral	68,99	72,74	78,32	0,31	0,33	88,32	-0,33	0,67	0,19	64,57
C4	Neutral	41,54	43,83	46,90	0,31	0,33	72,12	-0,37	0,88	0,41	38,90
D4	Neutral	22,53	23,77	25,40	0,31	0,33	55,86	-0,28	0,78	0,68	20,89
E4	Neutral	11,07	11,68	12,37	0,32	0,33	40,70	-0,23	0,89	1,00	10,00
F4	Black	3,12	3,30	3,48	0,32	0,33	21,19	-0,21	0,65	1,52	3,02

The table above provides a generic colorimetric description of the color and gray patches (for illuminant D50). For highest accuracy individual reference values for a chart can be ordered.