

see similar files: <http://farbe.li-tu-berlin.de/CEX4/CEX4.HTM>
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Ostwald optimal colours (o), maximum (m) $C_{AB,10}$ for D65, $Y_{N,10}=0$, $Y_{W,10}=100$, $Y_m=520_770$													
i_1, λ_1	i_2, λ_2	X_{10}	Y_{10}	Z_{10}	x_{10}	y_{10}	z_{10}	$h_{xy,10}$	i_d, λ_d	i_c, λ_c	Code		
0	405	31	556	30.74	52.33	95.9	0.1717	0.2924	0.5358	195.1	15	476	37 585 Cm
6	435	31	557	27.63	53.26	76.12	0.176	0.3391	0.4847	176.5	16	480	44 621
10	450	31	559	22.65	53.56	44.06	0.1883	0.4453	0.3662	137.6	18	492	-1 492c
11	460	32	562	22.68	54.81	36.09	0.1996	0.4825	0.3177	126.9	19	498	-1 498c
12	465	33	565	22.93	56.0	28.9	0.2126	0.5193	0.268	118.2	21	506	-1 506c
14	470	34	570	24.46	57.89	17.7	0.2445	0.5785	0.1769	105.6	24	522	-1 522c Gm
15	475	35	579	30.89	63.11	13.83	0.2864	0.5852	0.1282	96.1	26	534	-1 534c
16	480	41	606	49.97	74.33	10.97	0.3693	0.5494	0.0811	75.6	30	550	-1 550c
16	485	-1	484c	69.99	83.34	10.97	0.4259	0.5072	0.0668	57.5	32	560	10 454 max
18	490	-1	490c	69.83	80.55	7.49	0.4423	0.5102	0.0474	54.3	32	562	11 459
19	495	-1	495c	69.81	78.81	6.43	0.4502	0.5082	0.0415	52.4	32	563	12 461
19	500	-1	499c	69.81	78.81	6.43	0.4502	0.5082	0.0415	52.4	32	563	12 461
22	510	-1	510c	69.45	71.94	4.73	0.4752	0.4923	0.0324	44.9	33	566	13 466
23	520	-1	519c	69.08	69.1	4.45	0.4842	0.4844	0.0312	41.9	33	568	13 468 Ym
26	530	-1	530c	66.62	59.04	4.0	0.5137	0.4553	0.0309	31.8	34	573	14 472
27	540	-1	539c	65.29	55.35	3.94	0.524	0.4443	0.0316	28.3	35	576	14 473
28	545	-1	544c	63.68	51.58	3.89	0.5343	0.4328	0.0327	24.7	35	578	14 474
29	550	-1	549c	61.78	47.76	3.87	0.5447	0.4211	0.0341	21.3	36	580	15 475
31	555	-1	555c	57.11	40.2	3.86	0.5644	0.3973	0.0381	14.8	37	586	15 476
32	560	10	451	64.26	38.17	54.04	0.4106	0.2439	0.3453	318.1	-1	491c	18 491
31	556	0	405	64.07	47.66	11.42	0.5202	0.3869	0.0927	15.1	37	585	15 476 Rm
31	557	6	435	67.17	46.73	31.21	0.4628	0.322	0.215	356.5	44	621	16 480
31	559	10	450	72.15	46.43	63.27	0.3967	0.2553	0.3479	317.6	-1	492c	18 492
32	562	11	460	72.13	45.18	71.24	0.3825	0.2396	0.3778	307.0	-1	498c	19 498
33	565	12	465	71.88	43.99	78.42	0.3699	0.2264	0.4036	298.2	-1	506c	21 506
34	570	14	470	70.34	42.1	89.62	0.348	0.2083	0.4435	285.6	-1	522c	24 522 Mm
35	579	15	475	63.91	36.88	93.5	0.3289	0.1898	0.4812	276.1	-1	534c	26 534
41	606	16	480	44.83	25.66	96.35	0.2687	0.1537	0.5774	255.7	-1	550c	30 550
-1	484c	16	485	24.82	16.65	96.35	0.18	0.1208	0.699	237.5	10	454	32 560 min
-1	490c	18	490	24.98	19.44	99.83	0.1731	0.1348	0.692	234.3	11	459	32 562
-1	495c	19	495	25.0	21.18	100.89	0.1699	0.144	0.6859	232.4	12	461	32 563
-1	499c	19	500	25.0	21.18	100.89	0.1699	0.144	0.6859	232.4	12	461	32 563
-1	510c	22	510	25.36	28.05	102.59	0.1625	0.1798	0.6576	225.0	13	466	33 566
-1	519c	23	520	25.73	30.89	102.87	0.1613	0.1936	0.6449	222.0	13	468	33 568 Bm
-1	530c	26	530	28.19	40.95	103.32	0.1634	0.2374	0.599	211.8	14	472	34 573
-1	539c	27	540	29.52	44.64	103.39	0.1662	0.2514	0.5823	208.3	14	473	35 576
-1	544c	28	545	31.12	48.41	103.43	0.1701	0.2645	0.5652	204.8	14	474	35 578
-1	549c	29	550	33.02	52.23	103.45	0.175	0.2767	0.5482	201.3	15	475	36 580
-1	555c	31	555	37.69	59.79	103.47	0.1875	0.2975	0.5148	194.8	15	476	37 586
10	451	32	560	30.55	61.82	53.28	0.2097	0.4244	0.3658	138.0	18	491	-1 491c
W0	380	770	94.81	100.0	107.33	0.3137	0.3309	0.3552	0.0				
N0	380	770	3.79	4.0	4.29	0.3137	0.3309	0.3552	0.0				

CEX40-7N

TUB-test chart CEX4; Hue circle of the *Ostwald* optimal colours with Y values, $Y_{N,10}=0,0$, $Y_{W,10}=100$
Data: XYZ and $YABC_{AB}h_{AB}$ as table with different wavelength, D65-10

Ostwald optimal colours (o), maximum (m) $C_{AB,10}$ for D65, $Y_{N,10}=0$, $Y_{W,10}=100$, $Y_m=520_770$													
i_1, λ_1	i_2, λ_2	Y_{10}	A_{10}	B_{10}	$C_{AB,10}$	a_{10}	b_{10}	$h_{xy,10}$	i_d, λ_d	i_c, λ_c	Code		
0	405	31	556	52.33	-47.18	-39.71	61.67	0.5872	-0.7327	220.0	15	476	37 585 Cm
6	435	31	557	53.26	-57.12	-18.94	60.18	0.5188	-0.5715	198.3	16	480	44 621
10	450	31	559	53.56	-70.3	13.42	71.57	0.4229	-0.3289	169.1	18	492	-1 492c
11	460	32	562	54.81	-73.2	22.73	76.65	0.4136	-0.2632	162.7	19	498	-1 498c
12	465	33	565	56.0	-75.4	31.19	81.6	0.4093	-0.2064	157.5	21	506	-1 506c
14	470	34	570	57.89	-76.01	44.41	88.03	0.4226	-0.1223	149.7	24	522	-1 522c Gm
15	475	35	579	63.11	-72.33	53.89	90.2	0.4894	-0.0876	143.3	26	534	-1 534c
16	480	41	606	74.33	-51.23	68.78	85.77	0.6721	-0.059	126.6	30	550	-1 550c
16	485	-1	484c	83.34	-22.55	78.45	81.63	0.8395	-0.0526	106.0	32	560	10 454 max
18	490	-1	490c	80.55	-16.33	78.94	80.61	0.8667	-0.0372	101.6	32	562	11 459
19	495	-1	495c	78.81	-12.26	78.13	79.08	0.8856	-0.0326	98.9	32	563	12 461
19	500	-1	499c	78.81	-12.26	78.13	79.08	0.8856	-0.0326	98.9	32	563	12 461
22	510	-1	510c	71.94	3.11	72.45	72.52	0.9651	-0.0263	87.5	33	566	13 466
23	520	-1	519c	69.1	8.91	69.69	70.26	0.9994	-0.0258	82.7	33	568	13 468 Ym
26	530	-1	530c	59.04	26.6	59.35	65.03	1.128	-0.0271	65.8	34	573	14 472
27	540	-1	539c	55.35	32.01	55.46	64.03	1.1791	-0.0284	60.0	35	576	14 473
28	545	-1	544c	51.58	36.93	51.45	63.33	1.2341	-0.0302	54.3	35	578	14 474
29	550	-1	549c	47.76	41.23	47.38	62.81	1.2931	-0.0324	48.9	36	580	15 475
31	555	-1	555c	40.2	47.47	39.28	61.61	1.42	-0.0384	39.6	37	586	15 476
32	560	10	451	38.17	70.12	-13.05	71.32	1.6825	-0.566	349.4	-1	491c	18 491
31	556	0	405	47.66	47.19	39.71	61.68	1.3439	-0.0958	40.0	37	585	15 476 Rm
31	557	6	435	46.73	57.12	18.94	60.18	1.4367	-0.267	18.3	44	621	16 480
31	559	10	450	46.43	70.28	-13.42	71.56	1.5533	-0.5448	349.1	-1	492c	18 492
32	562	11	460	45.18	73.19	-22.73	76.64	1.5958	-0.6304	342.7	-1	498c	19 498
33	565	12	465	43.99	75.38	-31.18	81.58	1.6333	-0.7128	337.5	-1	506c	21 506
34	570	14	470	42.1	75.99	-44.39	88.01	1.6696	-0.8509	329.7	-1	522c	24 522 Mm
35	579	15	475	36.88	72.3	-53.87	90.17	1.7321	-1.0135	323.3	-1	534c	26 534
41	606	16	480	25.66	51.21	-68.75	85.73	1.7461	-1.5009	306.6	-1	550c	30 550
-1	484c	16	485	16.65	22.54	-78.4	81.58	1.4893	-2.3126	286.0	10	454	32 560 min
-1	490c	18	490	19.44	16.32	-78.89	80.56	1.2836	-2.0519	281.6	11	459	32 562
-1	495c	19	495	21.18	12.25	-78.09	79.04	1.1792	-1.9035	278.9	12	461	32 563
-1	499c	19	500	21.18	12.25	-78.09	79.04	1.1792	-1.9035	278.9	12	461	32 563
-1	510c	22	510	28.05	-3.11	-72.43	72.5	0.9035	-1.4619	267.5	13	466	33 566
-1	519c	23	520	30.89	-8.91	-69.67	70.23	0.8324	-1.3312	262.7	13	468	33 568 Bm
-1	530c	26	530	40.95	-26.59	-59.33	65.02	0.688	-1.0087	245.8	14	472	34 573
-1	539c	27	540	44.64	-32.0	-55.45	64.02	0.661	-0.926	240.0	14	473	35 576
-1	544c	28	545	48.41	-36.92	-51.45	63.32	0.6427	-0.8543	234.3	14	474	35 578
-1	549c	29	550	52.23	-41.22	-47.37	62.8	0.6321	-0.792	228.9	15	475	36 580
-1	555c	31	555	59.79	-47.46	-39.27	61.61	0.6302	-0.6919	219.6	15	476	37 586
10	451	32	560	61.82	-70.13	13.05	71.33	0.494	-0.3447	169.4	18	491	-1 491c
W0	380	770	100.0	0.0	0.0	0.0	0.9478	-0.4292	0.0		$B_c=1,000$		
N0	380	770	4.0	0.0	0.0	0.0	0.9478	-0.4292	0.0		$x_c=0,000$		

CEX41-7N

TUB registration: 20201101-CEX4/CEX4L0NP.PDF /.PS
application for evaluation and measurement of display or print

see similar files: <http://farbe.li-tu-berlin.de/CEX4/CEX4.HTM>
technical information: <http://farbe.li-tu-berlin.de> or <http://130.149.60.45/~farbmetrik>

Ostwald optimal colours (o), maximum (m) $C_{AB,10}$ for D50, $Y_{N,10}=0$, $Y_{W,10}=100$, $Y_m=520_770$													
i_1, λ_1	i_2, λ_2	X_{10}	Y_{10}	Z_{10}	x_{10}	y_{10}	z_{10}	$h_{xy,10}$	i_d, λ_d	i_c, λ_c	Code		
1 405	31 559	28.77	52.22	72.23	0.1877	0.3408	0.4713	186.6	15 479	37 589	Cm		
7 435	32 561	25.52	52.17	54.58	0.1929	0.3944	0.4126	167.2	16 484	58 693			
10 450	32 562	22.92	52.53	35.78	0.206	0.4722	0.3216	141.4	18 493	-1 493c			
12 460	32 564	22.3	53.42	23.9	0.2238	0.5362	0.2399	125.0	20 503	-1 503c			
13 465	33 566	22.58	54.02	18.94	0.2363	0.5653	0.1982	118.3	22 511	-1 511c			
14 470	34 570	24.23	55.74	14.84	0.2555	0.5878	0.1565	111.9	24 521	-1 521c	Gm		
15 475	35 576	28.45	59.22	11.63	0.2865	0.5963	0.1171	104.4	26 531	-1 531c			
16 480	38 590	38.86	66.38	9.23	0.3394	0.5798	0.0806	92.1	28 543	-1 543c			
17 485	-1 485c	75.6	83.6	7.49	0.4535	0.5015	0.0449	53.2	32 563	11 458	max		
18 490	-1 490c	75.56	82.31	6.23	0.4604	0.5015	0.038	51.5	32 564	12 460			
19 495	-1 495c	75.54	80.77	5.3	0.4674	0.4997	0.0328	49.4	33 565	12 462			
20 500	-1 500c	75.51	78.97	4.61	0.4746	0.4963	0.029	47.1	33 566	12 464			
21 510	-1 509c	75.41	76.89	4.12	0.4821	0.4915	0.0263	44.4	33 567	13 466			
24 520	-1 520c	74.32	68.91	3.31	0.5071	0.4702	0.0225	34.7	34 571	14 471	Ym		
25 530	-1 529c	73.54	65.66	3.17	0.5165	0.4611	0.0222	31.0	34 573	14 473			
28 540	-1 540c	69.61	54.85	2.96	0.5462	0.4304	0.0232	19.6	35 579	15 476			
29 545	-1 545c	67.71	51.04	2.94	0.5563	0.4194	0.0241	16.0	36 581	15 477			
29 550	-1 549c	67.71	51.04	2.94	0.5563	0.4194	0.0241	16.0	36 581	15 477			
31 555	-1 555c	62.98	43.4	2.93	0.5761	0.397	0.0268	9.3	37 587	15 479			
32 560	2 411	60.53	39.71	4.59	0.5773	0.3787	0.0438	4.7	38 591	16 480			
31 559	1 405	67.95	47.77	9.17	0.544	0.3824	0.0734	6.6	37 589	15 479	Rm		
32 561	7 435	71.2	47.82	26.82	0.4881	0.3278	0.1839	347.3	58 693	16 484			
32 562	10 450	73.8	47.46	45.63	0.4422	0.2843	0.2733	321.5	-1 493c	18 493			
32 564	12 460	74.42	46.57	57.5	0.4169	0.2609	0.3221	305.0	-1 503c	20 503			
33 566	13 465	74.13	45.97	62.46	0.406	0.2518	0.3421	298.4	-1 511c	22 511			
34 570	14 470	72.48	44.25	66.56	0.3954	0.2414	0.3631	292.0	-1 521c	24 521	Mm		
35 576	15 475	68.26	40.77	69.77	0.3817	0.228	0.3902	284.5	-1 531c	26 531			
38 590	16 480	57.86	33.61	72.17	0.3535	0.2054	0.441	272.1	-1 543c	28 543			
-1 485c	17 485	21.12	16.39	73.91	0.1895	0.1471	0.6633	233.3	11 458	32 563	min		
-1 490c	18 490	21.15	17.68	75.17	0.1855	0.1551	0.6593	231.5	12 460	32 564			
-1 495c	19 495	21.17	19.22	76.1	0.1817	0.165	0.6532	229.5	12 462	33 565			
-1 500c	20 500	21.21	21.02	76.79	0.1781	0.1766	0.6451	227.1	12 464	33 566			
-1 509c	21 510	21.3	23.1	77.28	0.175	0.1898	0.635	224.5	13 466	33 567			
-1 520c	24 520	22.39	31.08	78.1	0.1702	0.2362	0.5935	214.7	14 471	34 571	Bm		
-1 529c	25 530	23.18	34.33	78.24	0.1707	0.2529	0.5763	211.0	14 473	34 573			
-1 540c	28 540	27.11	45.14	78.44	0.1799	0.2995	0.5205	199.6	15 476	35 579			
-1 545c	29 545	29.01	48.95	78.46	0.1854	0.3129	0.5016	196.0	15 477	36 581			
-1 549c	29 550	29.01	48.95	78.46	0.1854	0.3129	0.5016	196.0	15 477	36 581			
-1 555c	31 555	33.73	56.59	78.48	0.1998	0.3352	0.4648	189.3	15 479	37 587			
2 411	32 560	36.19	60.28	76.81	0.2088	0.3478	0.4432	184.7	16 480	38 591			
W0 380	770	96.72	99.99	81.41	0.3477	0.3595	0.2927	0.0					
N0 380	770	3.86	3.99	3.25	0.3477	0.3595	0.2927	0.0					

CEX40-7N

TUB-test chart CEX4; Hue circle of the *Ostwald* optimal colours with Y values, $Y_{N,10}=0,0$, $Y_{W,10}=100$
Data: XYZ and $YABC_{AB}h_{AB}$ as table with different wavelength, D50-10

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Ostwald optimal colours (o), maximum (m) $C_{AB,10}$ for D50, $Y_{N,10}=0$, $Y_{W,10}=100$, $Y_m=520_770$													
i_1, λ_1	i_2, λ_2	Y_{10}	A_{10}	B_{10}	$C_{AB,10}$	a_{10}	b_{10}	$h_{xy,10}$	i_d, λ_d	i_c, λ_c	Code		
1 405	31 559	52.22	-54.35	-29.7	61.93	0.5507	-0.553	208.6	15 479	37 589	Cm		
7 435	32 561	52.17	-62.34	-12.1	63.5	0.489	-0.4183	190.9	16 484	58 693			
10 450	32 562	52.53	-69.71	6.98	70.06	0.4361	-0.2723	174.2	18 493	-1 493c			
12 460	32 564	53.42	-73.41	19.58	75.98	0.4173	-0.1789	165.0	20 503	-1 503c			
13 465	33 566	54.02	-74.13	25.02	78.24	0.418	-0.1402	161.3	22 511	-1 511c			
14 470	34 570	55.74	-74.17	30.52	80.21	0.4347	-0.1064	157.6	24 521	-1 521c	Gm		
15 475	35 576	59.22	-72.04	36.57	80.79	0.4804	-0.0785	153.0	26 531	-1 531c			
16 480	38 590	66.38	-63.33	44.79	77.57	0.5853	-0.0556	144.7	28 543	-1 543c			
17 485	-1 485c	83.6	-13.14	60.55	61.96	0.904	-0.0358	102.2	32 563	11 458	max		
18 490	-1 490c	82.31	-10.11	60.75	61.59	0.9178	-0.0303	99.4	32 564	12 460			
19 495	-1 495c	80.77	-6.43	60.43	60.78	0.9351	-0.0262	96.0	33 565	12 462			
20 500	-1 500c	78.97	-2.16	59.65	59.69	0.956	-0.0233	92.0	33 566	12 464			
21 510	-1 509c	76.89	2.62	58.46	58.51	0.9806	-0.0214	87.4	33 567	13 466			
24 520	-1 520c	68.91	19.19	52.77	56.15	1.0783	-0.0192	70.0	34 571	14 471	Ym		
25 530	-1 529c	65.66	25.07	50.27	56.18	1.1197	-0.0193	63.4	34 573	14 473			
28 540	-1 540c	54.85	41.36	41.68	58.72	1.2686	-0.0216	45.2	35 579	15 476			
29 545	-1 545c	51.04	45.84	38.6	59.93	1.3261	-0.023	40.1	36 581	15 477			
29 550	-1 549c	51.04	45.84	38.6	59.93	1.3261	-0.023	40.1	36 581	15 477			
31 555	-1 555c	43.4	52.5	32.39	61.69	1.4508	-0.027	31.6	37 587	15 479			
32 560	2 411	39.71	55.28	27.72	61.84	1.5238	-0.0463	26.6	38 591	16 480			
31 559	1 405	47.77	54.35	29.7	61.94	1.4221	-0.0768	28.6	37 589	15 479	Rm		
32 561	7 435	47.82	62.33	12.1	63.5	1.4884	-0.2243	10.9	58 693	16 484			
32 562	10 450	47.46	69.7	-6.98	70.05	1.5543	-0.3844	354.2	-1 493c	18 493			
32 564	12 460	46.57	73.4	-19.57	75.96	1.5974	-0.4937	345.0	-1 503c	20 503			
33 566	13 465	45.97	74.12	-25.02	78.23	1.6118	-0.5432	341.3	-1 511c	22 511			
34 570	14 470	44.25	74.15	-30.52	80.19	1.6372	-0.6014	337.6	-1 521c	24 521	Mm		
35 576	15 475	40.77	72.02	-36.56	80.77	1.6735	-0.6842	333.0	-1 531c	26 531			
38 590	16 480	33.61	63.31	-44.78	77.55	1.7203	-0.8584	324.7	-1 543c	28 543			
-1 485c	17 485	16.39	13.14	-60.52	61.93	1.2876	-1.8023	282.2	11 458	32 563	min		
-1 490c	18 490	17.68	10.1	-60.73	61.56	1.1956	-1.699	279.4	12 460	32 564			
-1 495c	19 495	19.22	6.43	-60.41	60.75	1.1008	-1.5826	276.0	12 462	33 565			
-1 500c	20 500	21.02	2.16	-59.63	59.67	1.0081	-1.4599	272.0	12 464	33 566			
-1 509c	21 510	23.1	-2.62	-58.44	58.5	0.9216	-1.3372	267.4	13 466	33 567			
-1 520c	24 520	31.08	-19.18	-52.76	56.14	0.7201	-1.0044	250.0	14 471	34 571	Bm		
-1 529c	25 530	34.33	-25.07	-50.26	56.17	0.6748	-0.9111	243.4	14 473	34 573			
-1 540c	28 540	45.14	-41.36	-41.67	58.72	0.6004	-0.6948	225.2	15 476	35 579			
-1 545c	29 545	48.95	-45.83	-38.6	59.92	0.5924	-0.6409	220.1	15 477	36 581			
-1 549c	29 550	48.95	-45.83	-38.6	59.92	0.5924	-0.6409	220.1	15 477	36 581			
-1 555c	31 555	56.59	-52.5	-32.39	61.69	0.5959	-0.5545	211.6	15 479	37 587			
2 411	32 560	60.28	-55.28	-27.72	61.84	0.6001	-0.5094	206.6	16 480	38 591			
W0 380	770	99.99	0.0	0.0	0.0	0.9669	-0.3255	0.0	$B_c=1,000$				
N0 380	770	3.99	0.0	0.0	0.0	0.9669	-0.3255	0.0	$x_c=0,000$				

CEX41-7N

TUB registration: 20201101-CEX4/CEX4L0NP.PDF /.PS
application for evaluation and measurement of display or print output

TUB material: code=rha4ta

see similar files: <http://farbe.li-tu-berlin.de/CEX4/CEX4.HTM>
technical information: <http://farbe.li-tu-berlin.de> or <http://130.149.60.45/~farbmetrik>

Ostwald optimal colours (o), maximum (m) $C_{AB,10}$ for P40, $Y_{N,10}=0$, $Y_{W,10}=100$, $Y_m=520_770$													
i_1, λ_1	i_2, λ_2	X_{10}	Y_{10}	Z_{10}	x_{10}	y_{10}	z_{10}	$h_{xy,10}$	i_d, λ_d	i_c, λ_c	Code		
0	405	32	563	28.38	50.84	57.63	0.2073	0.3714	0.4211	181.3	16	481	38 591 Cm
7	435	32	564	25.81	51.21	41.95	0.2169	0.4304	0.3526	161.6	17	487	-1 487c
10	450	33	565	23.49	50.96	28.01	0.2292	0.4973	0.2733	141.4	19	495	-1 495c
12	460	33	567	23.28	51.74	19.21	0.247	0.549	0.2039	127.9	21	505	-1 505c
12	465	33	568	24.59	53.16	19.21	0.2536	0.5482	0.1981	126.6	21	506	-1 506c
14	470	34	571	25.37	53.98	12.21	0.277	0.5895	0.1334	116.1	24	521	-1 521c Gm
15	475	35	576	28.62	56.62	9.69	0.3014	0.5963	0.1021	110.0	26	531	-1 531c
16	480	37	585	36.42	62.18	7.77	0.3424	0.5845	0.073	100.7	28	541	-1 541c
17	485	42	611	59.99	75.11	6.32	0.4242	0.531	0.0446	74.8	31	557	-1 557c
17	490	-1	489c	82.56	84.95	6.32	0.4749	0.4887	0.0363	50.6	33	566	11 458 max
19	495	-1	495c	82.51	82.52	4.43	0.4868	0.4869	0.0261	46.7	33	568	12 463
20	500	-1	500c	82.48	80.95	3.84	0.493	0.4839	0.0229	44.3	33	569	13 465
22	510	-1	510c	82.21	76.99	3.08	0.5065	0.4743	0.019	38.4	34	571	13 469
23	520	-1	519c	81.9	74.56	2.84	0.514	0.468	0.0178	34.9	34	572	14 471 Ym
25	530	-1	529c	80.69	68.91	2.54	0.5303	0.4529	0.0167	27.5	35	575	14 474
28	540	-1	540c	77.0	58.8	2.35	0.5573	0.4256	0.017	15.9	36	581	15 477
28	545	-1	544c	77.0	58.8	2.35	0.5573	0.4256	0.017	15.9	36	581	15 477
30	550	-1	550c	73.03	51.42	2.32	0.576	0.4055	0.0183	8.7	37	585	15 479
31	555	-1	555c	70.52	47.62	2.32	0.5853	0.3953	0.0192	5.5	37	587	16 480
31	560	-1	559c	70.52	47.62	2.32	0.5853	0.3953	0.0192	5.5	37	587	16 480
32	563	0	405	73.36	49.15	6.81	0.5672	0.38	0.0526	1.3	38	591	16 481 Rm
32	564	7	435	75.93	48.78	22.48	0.5158	0.3313	0.1527	341.6	-1	487c	17 487
33	565	10	450	78.25	49.03	36.43	0.4779	0.2994	0.2225	321.5	-1	495c	19 495
33	567	12	460	78.46	48.25	45.22	0.4563	0.2806	0.263	307.9	-1	505c	21 505
33	568	12	465	77.15	46.83	45.22	0.4559	0.2767	0.2672	306.7	-1	506c	21 506
34	571	14	470	76.37	46.01	52.23	0.4373	0.2635	0.299	296.2	-1	521c	24 521 Mm
35	576	15	475	73.12	43.37	54.75	0.427	0.2532	0.3197	290.1	-1	531c	26 531
37	585	16	480	65.32	37.81	56.67	0.4087	0.2366	0.3546	280.8	-1	541c	28 541
42	611	17	485	41.75	24.88	58.12	0.3346	0.1994	0.4658	254.9	-1	557c	31 557
-1	489c	17	490	19.19	15.04	58.12	0.2077	0.1629	0.6293	230.6	11	458	33 566 min
-1	495c	19	495	19.23	17.47	60.0	0.1988	0.1807	0.6204	226.7	12	463	33 568
-1	500c	20	500	19.26	19.04	60.6	0.1947	0.1925	0.6126	224.3	13	465	33 569
-1	510c	22	510	19.53	23.0	61.35	0.1879	0.2214	0.5905	218.4	13	469	34 571
-1	519c	23	520	19.85	25.43	61.59	0.1857	0.2379	0.5763	215.0	14	471	34 572 Bm
-1	529c	25	530	21.05	31.08	61.9	0.1846	0.2725	0.5427	207.5	14	474	35 575
-1	540c	28	540	24.74	41.19	62.09	0.1932	0.3217	0.4849	195.9	15	477	36 581
-1	544c	28	545	24.74	41.19	62.09	0.1932	0.3217	0.4849	195.9	15	477	36 581
-1	550c	30	550	28.71	48.57	62.12	0.2059	0.3484	0.4456	188.7	15	479	37 585
-1	555c	31	555	31.22	52.37	62.12	0.2142	0.3593	0.4263	185.5	16	480	37 587
-1	559c	31	560	31.22	52.37	62.12	0.2142	0.3593	0.4263	185.5	16	480	37 587
W0	380	770	101.75	100.0	64.44	0.3822	0.3756	0.2421	0.0				
N0	380	770	4.07	4.0	2.57	0.3822	0.3756	0.2421	0.0				

CEX40-7N

TUB-test chart CEX4; Hue circle of the *Ostwald* optimal colours with Y values, $Y_{N,10}=0,0$, $Y_{W,10}=100$
Data: XYZ and $YABC_{AB}h_{AB}$ as table with different wavelength, P40-10

1-001200-F0

Ostwald optimal colours (o), maximum (m) $C_{AB,10}$ for P40, $Y_{N,10}=0$, $Y_{W,10}=100$, $Y_m=520_770$													
i_1, λ_1	i_2, λ_2	Y_{10}	A_{10}	B_{10}	$C_{AB,10}$	a_{10}	b_{10}	$h_{xy,10}$	i_d, λ_d	i_c, λ_c	Code		
0	405	32	563	50.84	-58.36	-24.85	63.43	0.5581	-0.4532	203.0	16	481	38 591 Cm
7	435	32	564	51.21	-65.73	-8.94	66.34	0.5038	-0.3276	187.7	17	487	-1 487c
10	450	33	565	50.96	-70.89	4.82	71.05	0.4608	-0.2198	176.1	19	495	-1 495c
12	460	33	567	51.74	-73.37	14.12	74.72	0.4499	-0.1485	169.1	21	505	-1 505c
12	465	33	568	53.16	-73.72	15.04	75.24	0.4625	-0.1445	168.4	21	506	-1 506c
14	470	34	571	53.98	-73.86	22.56	77.23	0.4699	-0.0905	163.0	24	521	-1 521c Gm
15	475	35	576	56.62	-72.45	26.78	77.24	0.5054	-0.0684	159.7	26	531	-1 531c
16	480	37	585	62.18	-67.08	32.29	74.45	0.5856	-0.0499	154.2	28	541	-1 541c
17	485	42	611	75.11	-41.05	42.07	58.78	0.7986	-0.0336	134.2	31	557	-1 557c
17	490	-1	489c	84.95	-9.68	48.41	49.37	0.9716	-0.0297	101.3	33	566	11 458 max
19	495	-1	495c	82.52	-3.61	48.73	48.86	0.9997	-0.0215	94.2	33	568	12 463
20	500	-1	500c	80.95	0.29	48.31	48.31	1.0186	-0.0189	89.6	33	569	13 465
22	510	-1	510c	76.99	9.7	46.51	47.52	1.0676	-0.016	78.2	34	571	13 469
23	520	-1	519c	74.56	15.07	45.19	47.64	1.0981	-0.0152	71.5	34	572	14 471 Ym
25	530	-1	529c	68.91	26.43	41.85	49.5	1.1707	-0.0147	57.7	35	575	14 474
28	540	-1	540c	58.8	42.91	35.53	55.71	1.3091	-0.016	39.6	36	581	15 477
28	545	-1	544c	58.8	42.91	35.53	55.71	1.3091	-0.016	39.6	36	581	15 477
30	550	-1	550c	51.42	51.77	30.8	60.24	1.4199	-0.018	30.7	37	585	15 479
31	555	-1	555c	47.62	55.14	28.36	62.01	1.4803	-0.0194	27.2	37	587	16 480
31	560	-1	559c	47.62	55.14	28.36	62.01	1.4803	-0.0194	27.2	37	587	16 480
32	563	0	405	49.15	58.36	24.85	63.43	1.4921	-0.0554	23.0	38	591	16 481 Rm
32	564	7	435	48.78	65.73	8.94	66.33	1.5562	-0.1843	7.7	-1	487c	17 487
33	565	10	450	49.03	70.88	-4.82	71.05	1.5955	-0.297	356.1	-1	495c	19 495
33	567	12	460	48.25	73.36	-14.12	74.71	1.6253	-0.3747	349.1	-1	505c	21 505
33	568	12	465	46.83	73.71	-15.03	75.23	1.6468	-0.3861	348.4	-1	506c	21 506
34	571	14	470	46.01	73.84	-22.56	77.21	1.6591	-0.4538	343.0	-1	521c	24 521 Mm
35	576	15	475	43.37	72.43	-26.78	77.22	1.6852	-0.5047	339.7	-1	531c	26 531
37	585	16	480	37.81	67.07	-32.28	74.43	1.7266	-0.5991	334.2	-1	541c	28 541
42	611	17	485	24.88	41.04	-42.06	58.77	1.677	-0.9338	314.2	-1	557c	31 557
-1	489c	17	490	15.04	9.68	-48.39	49.35	1.2746	-1.5442	281.3	11	458	33 566 min
-1	495c	19	495	17.47	3.61	-48.71	48.84	1.0999	-1.3725	274.2	12	463	33 568
-1	500c	20	500	19.04	-0.29	-48.3	48.3	1.0111	-1.2721	269.6	13	465	33 569
-1	510c	22	510	23.0	-9.69	-46.5	47.5	0.8486	-1.0663	258.2	13	469	34 571
-1	519c	23	520	25.43	-15.07	-45.18	47.63	0.7801	-0.9683	251.5	14	471	34 572 Bm
-1	529c	25	530	31.08	-26.43	-41.84	49.49	0.6771	-0.7961	237.7	14	474	35 575
-1	540c	28	540	41.19	-42.91	-35.53	55.71	0.6005	-0.6027	219.6	15	477	36 581
-1	544c	28	545	41.19	-42.91	-35.53	55.71	0.6005	-0.6027	219.6	15	477	36 581
-1	550c	30	550	48.57	-51.77	-30.8	60.24	0.5909	-0.5114	210.7	15	479	37 585
-1	555c	31	555	52.37	-55.14	-28.36	62.01	0.596	-0.4743	207.2	16	480	37 587
-1	559c	31	560	52.37	-55.14	-28.36	62.01	0.596	-0.4743	207.2	16	480	37 587
W0	380	770	100.0	0.0	0.0	0.0	0.0	1.0172	-0.2577	0.0	$B_c=1,000$		
N0	380	770	4.0	0.0	0.0	0.0	0.0	1.0172	-0.2577	0.0	$x_c=0,000$		

CEX41-7N

TUB registration: 2020

see similar files: <http://farbe.li-tu-berlin.de/CEX4/CEX4.HTM>
technical information: <http://farbe.li-tu-berlin.de> or <http://130.149.60.45/~farbmetrik>

Ostwald optimal colours (o), maximum (m) $C_{AB,10}$ for A00, $Y_{N,10}=0$, $Y_{W,10}=100$, $Y_m=520_770$													
i_1, λ_1	i_2, λ_2	X_{10}	Y_{10}	Z_{10}	x_{10}	y_{10}	z_{10}	$h_{xy,10}$	i_d, λ_d	i_c, λ_c	Code		
1	405	34	570	27.52	48.47	31.35	0.2563	0.4515	0.2921	166.8	17 487	39 597	Cm
7	435	34	570	26.55	48.7	24.51	0.2661	0.4881	0.2457	156.0	18 491	47 637	
9	450	34	571	26.19	49.04	19.81	0.2755	0.5159	0.2084	147.9	19 495	-1 495c	
12	460	34	572	25.7	49.34	12.31	0.2942	0.5648	0.1409	134.6	21 505	-1 505c	
13	465	34	573	26.17	49.86	10.05	0.304	0.5792	0.1167	130.3	22 512	-1 512c	
14	470	34	574	27.27	50.84	8.08	0.3163	0.5897	0.0938	126.2	24 520	-1 520c	Gm
15	475	35	576	28.77	51.89	6.49	0.3301	0.5953	0.0744	122.5	25 528	-1 528c	
16	480	36	581	32.38	54.48	5.23	0.3516	0.5915	0.0568	118.1	27 537	-1 537c	
17	485	37	588	40.39	59.75	4.25	0.3869	0.5723	0.0407	111.0	29 547	-1 547c	
18	490	41	609	62.98	72.01	3.5	0.4547	0.5199	0.0253	88.1	32 561	-1 561c	
19	495	-1 495c	95.34	85.22	2.92	0.5195	0.4644	0.0159	40.5	34 573	13 465	max	
20	500	-1 500c	95.31	84.06	2.49	0.524	0.4622	0.0136	37.6	34 573	13 468		
21	510	-1 509c	95.25	82.67	2.16	0.5289	0.459	0.0119	34.3	34 574	14 470		
24	520	-1 520c	94.44	76.82	1.57	0.5464	0.4444	0.0091	22.0	35 577	15 476	Ym	
25	530	-1 529c	93.84	74.33	1.46	0.5531	0.4381	0.0086	17.5	35 578	15 477		
27	540	-1 539c	91.91	68.55	1.33	0.568	0.4236	0.0082	8.6	36 581	16 480		
29	545	-1 545c	88.83	61.89	1.27	0.5843	0.4071	0.0084	0.5	37 585	16 483		
30	550	-1 550c	86.77	58.32	1.26	0.5928	0.3984	0.0086	356.9	37 587	16 484		
31	555	-1 555c	84.3	54.59	1.26	0.6014	0.3895	0.009	353.7	37 589	17 485		
32	560	-1 560c	81.4	50.77	1.26	0.61	0.3804	0.0094	350.9	38 592	17 486		
34	570	1 405	83.62	51.52	3.84	0.6016	0.3707	0.0276	346.8	39 597	17 487	Rm	
34	570	7 435	84.59	51.29	10.68	0.5771	0.3499	0.0728	336.0	47 637	18 491		
34	571	9 450	84.95	50.95	15.38	0.5615	0.3368	0.1016	327.9	-1 495c	19 495		
34	572	12 460	85.44	50.65	22.88	0.5374	0.3186	0.1439	314.6	-1 505c	21 505		
34	573	13 465	84.97	50.13	25.14	0.5302	0.3128	0.1569	310.3	-1 512c	22 512		
34	574	14 470	83.87	49.15	27.11	0.5237	0.3069	0.1692	306.2	-1 520c	24 520	Mm	
35	576	15 475	82.37	48.1	28.7	0.5174	0.3022	0.1803	302.6	-1 528c	25 528		
36	581	16 480	78.76	45.51	29.96	0.5106	0.295	0.1942	298.2	-1 537c	27 537		
37	588	17 485	70.75	40.24	30.94	0.4984	0.2835	0.218	291.1	-1 547c	29 547		
41	609	18 490	48.16	27.98	31.69	0.4465	0.2595	0.2938	268.2	-1 561c	32 561		
-1 495c	19 495	15.8	14.77	32.27	0.2515	0.235	0.5134	220.5	13 465	34 573	min		
-1 500c	20 500	15.83	15.93	32.7	0.2455	0.247	0.5073	217.6	13 468	34 573			
-1 509c	21 510	15.89	17.32	33.03	0.2399	0.2614	0.4986	214.3	14 470	34 574			
-1 520c	24 520	16.7	23.17	33.62	0.2272	0.3152	0.4574	202.0	15 476	35 577	Bm		
-1 529c	25 530	17.3	25.66	33.73	0.2256	0.3346	0.4397	197.5	15 477	35 578			
-1 539c	27 540	19.23	31.44	33.86	0.2274	0.3719	0.4005	188.6	16 480	36 581			
-1 545c	29 545	22.31	38.1	33.92	0.2365	0.4038	0.3595	180.5	16 483	37 585			
-1 550c	30 550	24.37	41.67	33.93	0.2437	0.4168	0.3393	176.9	16 484	37 587			
-1 555c	31 555	26.84	45.4	33.93	0.2528	0.4276	0.3195	173.7	17 485	37 589			
-1 560c	32 560	29.74	49.22	33.93	0.2634	0.436	0.3005	170.8	17 486	38 592			
W0	380	770	111.15	99.99	35.19	0.4511	0.4059	0.1428	0.0				
N0	380	770	4.44	3.99	1.4	0.4511	0.4059	0.1428	0.0				

CEX40-7N

TUB-test chart CEX4; Hue circle of the *Ostwald* optimal colours with Y values, $Y_{N,10}=0,0$, $Y_{W,10}=100$
Data: XYZ and $YABC_{AB}h_{AB}$ as table with different wavelength, A00-10

1-001300-F0

Ostwald optimal colours (o), maximum (m) $C_{AB,10}$ for A00, $Y_{N,10}=0$, $Y_{W,10}=100$, $Y_m=520_770$													
i_1, λ_1	i_2, λ_2	Y_{10}	A_{10}	B_{10}	$C_{AB,10}$	a_{10}	b_{10}	$h_{xy,10}$	i_d, λ_d	i_c, λ_c	Code		
1	405	34	570	48.47	-65.87	-14.29	67.4	0.5676	-0.2587	192.2	17 487	39 597	Cm
7	435	34	570	48.7	-68.92	-7.37	69.31	0.5451	-0.2012	186.1	18 491	47 637	
9	450	34	571	49.04	-70.76	-2.55	70.8	0.534	-0.1615	182.0	19 495	-1 495c	
12	460	34	572	49.34	-72.82	5.05	72.99	0.5208	-0.0998	176.0	21 505	-1 505c	
13	465	34	573	49.86	-73.1	7.49	73.48	0.5247	-0.0806	174.1	22 512	-1 512c	
14	470	34	574	50.84	-73.07	9.8	73.73	0.5363	-0.0636	172.3	24 520	-1 520c	Gm
15	475	35	576	51.89	-72.22	11.77	73.18	0.5544	-0.05	170.7	25 528	-1 528c	
16	480	36	581	54.48	-70.41	13.94	71.78	0.5942	-0.0384	168.7	27 537	-1 537c	
17	485	37	588	59.75	-65.02	16.77	67.15	0.6759	-0.0284	165.5	29 547	-1 547c	
18	490	41	609	72.01	-42.62	21.83	47.88	0.8744	-0.0194	152.8	32 561	-1 561c	
19	495	-1 495c	85.22	1.53	27.06	27.1	1.1184	-0.0137	86.7	34 573	13 465	max	
20	500	-1 500c	84.06	4.69	27.09	27.49	1.1335	-0.0118	80.1	34 573	13 468		
21	510	-1 509c	82.67	8.4	26.93	28.21	1.1519	-0.0104	72.6	34 574	14 470		
24	520	-1 520c	76.82	22.62	25.46	34.06	1.229	-0.0081	48.3	35 577	15 476	Ym	
25	530	-1 529c	74.33	28.05	24.69	37.37	1.2622	-0.0078	41.3	35 578	15 477		
27	540	-1 539c	68.55	39.3	22.79	45.43	1.3405	-0.0077	30.1	36 581	16 480		
29	545	-1 545c	61.89	50.07	20.5	54.11	1.4348	-0.0082	22.2	37 585	16 483		
30	550	-1 550c	58.32	54.86	19.25	58.14	1.4875	-0.0087	19.3	37 587	16 484		
31	555	-1 555c	54.59	59.03	17.94	61.7	1.5437	-0.0092	16.9	37 589	17 485		
32	560	-1 560c	50.77	62.41	16.6	64.58	1.6029	-0.0099	14.8	38 592	17 486		
34	570	1 405	51.52	65.86	14.29	67.4	1.6225	-0.0298	12.2	39 597	17 487	Rm	
34	570	7 435	51.29	68.92	7.37	69.31	1.6486	-0.0832	6.1	47 637	18 491		
34	571	9 450	50.95	70.75	2.55	70.79	1.6666	-0.1207	2.0	-1 495c	19 495		
34	572	12 460	50.65	72.81	-5.05	72.98	1.6861	-0.1806	356.0	-1 505c	21 505		
34	573	13 465	50.13	73.09	-7.49	73.47	1.6943	-0.2005	354.1	-1 512c	22 512		
34	574	14 470	49.15	73.06	-9.8	73.72	1.7057	-0.2205	352.3	-1 520c	24 520	Mm	
35	576	15 475	48.1	72.21	-11.76	73.16	1.7116	-0.2386	350.7	-1 528c	25 528		
36	581	16 480	45.51	70.4	-13.94	71.77	1.73	-0.2632	348.7	-1 537c	27 537		
37	588	17 485	40.24	65.01	-16.77	67.13	1.7573	-0.3074	345.5	-1 547c	29 547		
41	609	18 490	27.98	42.61	-21.83	47.88	1.7202	-0.4528	332.8	-1 561c	32 561		
-1 495c	19 495	14.77	-1.53	-27.05	27.1	1.0697	-0.8734	266.7	13 465	34 573	min		
-1 500c	20 500	15.93	-4.69	-27.08	27.49	0.9934	-0.8209	260.1	13 468	34 573			
-1 509c	21 510	17.32	-8.4	-26.92	28.21	0.9171	-0.7624	252.6	14 470	34 574			
-1 520c	24 520	23.17	-22.62	-25.46	34.05	0.7207	-0.5802	228.3	15 476	35 577	Bm		
-1 529c	25 530	25.66	-28.05	-24.68	37.37	0.674	-0.5254	221.3	15 477	35 578			
-1 539c	27 540	31.44	-39.29	-22.78	45.42	0.6113	-0.4306	210.1	16 480	36 581			
-1 545c	29 545	38.1	-50.07	-20.5	54.11	0.5855	-0.356	202.2	16 483	37 585			
-1 550c	30 550	41.67	-54.86	-19.25	58.14	0.5847	-0.3255	199.3	16 484	37 587			
-1 555c	31 555	45.4	-59.03	-17.94	61.7	0.591	-0.2988	196.9	17 485	37 589			
-1 560c	32 560	49.22	-62.41	-16.6	64.58	0.604	-0.2756	194.8	17 486	38 592			
W0	380	770	99.99	0.0	0.0	0.0	1.1112	-0.1407	0.0	$B_c=1,000$			
N0	380	770	3.99	0.0	0.0	0.0	1.1112	-0.1407	0.0	$x_c=0,000$			

CEX41-7N

TUB registration: 20201101-CEX4/CEX4L0NP.PDF /.PS
application for evaluation and measurement of display or print output

TUB material: code=rha4ta

see similar files: <http://farbe.li-tu-berlin.de/CEX4/CEX4.HTM>
technical information: <http://farbe.li-tu-berlin.de> or <http://130.149.60.45/~farbmetrik>

Ostwald optimal colours (o), maximum (m) $C_{AB,10}$ for E00, $Y_{N,10}=0$, $Y_{W,10}=100$, $Y_m=520_770$													
i_1, λ_1	i_2, λ_2	X_{10}	Y_{10}	Z_{10}	x_{10}	y_{10}	z_{10}	$h_{xy,10}$	i_d, λ_d	i_c, λ_c	Code		
1	405	31	559	31.26	51.95	88.06	0.1825	0.3033	0.5141	191.2	15 477	37 589	Cm
7	435	32	561	26.15	51.88	60.5	0.1887	0.3744	0.4367	164.0	16 484	-1 484c	
10	450	32	562	23.14	52.37	38.45	0.203	0.4595	0.3373	135.8	18 493	-1 493c	
12	460	33	565	22.23	53.04	25.59	0.2204	0.5258	0.2537	120.3	21 505	-1 505c	
13	465	33	568	23.41	54.6	20.27	0.2381	0.5555	0.2062	113.1	23 515	-1 515c	
13	470	34	572	26.59	57.82	20.27	0.254	0.5523	0.1936	109.8	24 520	-1 520c	Gm
14	475	36	581	32.09	62.4	15.92	0.2906	0.5651	0.1442	100.3	26 532	-1 532c	
16	480	40	604	51.14	73.1	10.1	0.3806	0.5441	0.0751	77.3	30 551	-1 551c	
17	485	-1	485c	75.4	82.92	8.27	0.4525	0.4977	0.0496	54.0	32 564	11 456	max
18	490	-1	490c	75.36	81.56	6.95	0.4598	0.4977	0.0424	52.3	32 564	11 458	
19	495	-1	495c	75.35	79.98	5.98	0.467	0.4957	0.0371	50.5	33 565	12 460	
20	500	-1	500c	75.31	78.14	5.28	0.4744	0.4922	0.0333	48.3	33 566	12 462	
22	510	-1	510c	75.01	73.64	4.42	0.49	0.481	0.0289	43.2	33 569	13 466	
23	520	-1	519c	74.66	70.96	4.15	0.4984	0.4737	0.0277	40.3	34 570	13 468	Ym
25	530	-1	529c	73.37	64.88	3.83	0.5163	0.4566	0.0269	33.9	34 573	14 470	
27	540	-1	539c	71.1	58.06	3.67	0.5352	0.437	0.0276	27.1	35 577	14 473	
29	545	-1	545c	67.75	50.8	3.61	0.5545	0.4158	0.0295	20.4	36 582	15 475	
29	550	-1	549c	67.75	50.8	3.61	0.5545	0.4158	0.0295	20.4	36 582	15 475	
31	555	-1	555c	63.19	43.42	3.6	0.5733	0.394	0.0326	14.1	37 587	15 476	
32	560	3	415	61.58	39.88	9.01	0.5574	0.3609	0.0816	7.0	38 594	15 478	
31	559	1	405	68.72	48.04	11.94	0.5339	0.3732	0.0927	11.2	37 589	15 477	Rm
32	561	7	435	73.83	48.11	39.5	0.4573	0.298	0.2446	344.1	-1 484c	16 484	
32	562	10	450	76.84	47.62	61.55	0.413	0.256	0.3309	315.9	-1 493c	18 493	
33	565	12	460	77.75	46.95	74.41	0.3904	0.2358	0.3737	300.4	-1 505c	21 505	
33	568	13	465	76.58	45.39	79.73	0.3796	0.225	0.3953	293.2	-1 515c	23 515	
34	572	13	470	73.39	42.17	79.73	0.3757	0.2159	0.4082	289.9	-1 520c	24 520	Mm
36	581	14	475	67.89	37.59	84.08	0.3581	0.1983	0.4435	280.4	-1 532c	26 532	
40	604	16	480	48.85	26.89	89.9	0.2949	0.1623	0.5427	257.3	-1 551c	30 551	
-1	485c	17	485	24.58	17.07	91.73	0.1842	0.1279	0.6877	234.0	11 456	32 564	min
-1	490c	18	490	24.62	18.43	93.05	0.1808	0.1354	0.6836	232.4	11 458	32 564	
-1	495c	19	495	24.63	20.01	94.02	0.1776	0.1443	0.678	230.5	12 460	33 565	
-1	500c	20	500	24.67	21.85	94.72	0.1746	0.1547	0.6706	228.4	12 462	33 566	
-1	510c	22	510	24.97	26.35	95.58	0.1699	0.1793	0.6506	223.3	13 466	33 569	
-1	519c	23	520	25.32	29.03	95.84	0.1685	0.1932	0.6381	220.3	13 468	34 570	Bm
-1	529c	25	530	26.61	35.11	96.17	0.1685	0.2223	0.609	213.9	14 470	34 573	
-1	539c	27	540	28.88	41.93	96.33	0.1727	0.2508	0.5763	207.2	14 473	35 577	
-1	545c	29	545	32.23	49.19	96.39	0.1812	0.2766	0.5421	200.4	15 475	36 582	
-1	549c	29	550	32.23	49.19	96.39	0.1812	0.2766	0.5421	200.4	15 475	36 582	
-1	555c	31	555	36.8	56.57	96.4	0.1939	0.298	0.5079	194.1	15 476	37 587	
3	415	32	560	38.4	60.11	90.99	0.2026	0.3172	0.4801	187.0	15 478	38 594	
W0	380	770	99.99	99.99	100.0	0.3333	0.3333	0.3333	0.0				
N0	380	770	3.99	3.99	4.0	0.3333	0.3333	0.3333	0.0				

CEX40-7N

TUB-test chart CEX4; Hue circle of the *Ostwald* optimal colours with Y values, $Y_{N,10}=0,0$, $Y_{W,10}=100$
Data: XYZ and $YABC_{AB}h_{AB}$ as table with different wavelength, E00-10

1-001400-E0

Ostwald optimal colours (o), maximum (m) $C_{AB,10}$ for E00, $Y_{N,10}=0$, $Y_{W,10}=100$, $Y_m=520_770$													
i_1, λ_1	i_2, λ_2	Y_{10}	A_{10}	B_{10}	$C_{AB,10}$	a_{10}	b_{10}	$h_{xy,10}$	i_d, λ_d	i_c, λ_c	Code		
1	405	31	559	51.95	-51.69	-36.09	63.05	0.6015	-0.6778	214.9	15 477	37 589	Cm
7	435	32	561	51.88	-64.28	-8.61	64.86	0.504	-0.4663	187.6	16 484	-1 484c	
10	450	32	562	52.37	-73.03	13.91	74.34	0.4418	-0.2936	169.2	18 493	-1 493c	
12	460	33	565	53.04	-76.98	27.44	81.73	0.419	-0.1929	160.3	21 505	-1 505c	
13	465	33	568	54.6	-77.94	34.32	85.16	0.4286	-0.1484	156.2	23 515	-1 515c	
13	470	34	572	57.82	-78.02	37.53	86.58	0.4598	-0.1402	154.3	24 520	-1 520c	Gm
14	475	36	581	62.4	-75.72	46.47	88.84	0.5142	-0.102	148.4	26 532	-1 532c	
16	480	40	604	73.1	-54.87	62.99	83.54	0.6993	-0.0552	131.0	30 551	-1 551c	
17	485	-1	485c	82.92	-18.75	74.63	76.95	0.9091	-0.0399	104.1	32 564	11 456	max
18	490	-1	490c	81.56	-15.45	74.6	76.18	0.9238	-0.034	101.7	32 564	11 458	
19	495	-1	495c	79.98	-11.53	73.98	74.87	0.9419	-0.0299	98.8	33 565	12 460	
20	500	-1	500c	78.14	-7.03	72.84	73.18	0.9636	-0.027	95.5	33 566	12 462	
22	510	-1	510c	73.64	3.46	69.2	69.29	1.0184	-0.024	87.1	33 569	13 466	
23	520	-1	519c	70.96	9.28	66.79	67.43	1.0519	-0.0234	82.0	34 570	13 468	Ym
25	530	-1	529c	64.88	21.23	61.04	64.63	1.1305	-0.0236	70.8	34 573	14 470	
27	540	-1	539c	58.06	32.62	54.37	63.41	1.2243	-0.0253	59.0	35 577	14 473	
29	545	-1	545c	50.8	42.38	47.18	63.42	1.3332	-0.0284	48.0	36 582	15 475	
29	550	-1	549c	50.8	42.38	47.18	63.42	1.3332	-0.0284	48.0	36 582	15 475	
31	555	-1	555c	43.42	49.41	39.81	63.45	1.4547	-0.0331	38.8	37 587	15 476	
32	560	3	415	39.88	54.25	30.86	62.42	1.5437	-0.0904	29.6	38 594	15 478	
31	559	1	405	48.04	51.69	36.1	63.05	1.4299	-0.0993	34.9	37 589	15 477	Rm
32	561	7	435	48.11	64.28	8.61	64.85	1.534	-0.3282	7.6	-1 484c	16 484	
32	562	10	450	47.62	73.02	-13.91	74.33	1.6129	-0.5168	349.2	-1 493c	18 493	
33	565	12	460	46.95	76.96	-27.43	81.71	1.6552	-0.6336	340.3	-1 505c	21 505	
33	568	13	465	45.39	77.92	-34.31	85.14	1.6861	-0.7022	336.2	-1 515c	23 515	
34	572	13	470	42.17	78.0	-37.52	86.56	1.7393	-0.7558	334.3	-1 520c	24 520	Mm
36	581	14	475	37.59	75.69	-46.45	88.81	1.805	-0.8941	328.4	-1 532c	26 532	
40	604	16	480	26.89	54.85	-62.96	83.5	1.8155	-1.3365	311.0	-1 551c	30 551	
-1	485c	17	485	17.07	18.74	-74.59	76.91	1.4388	-2.1477	284.1	11 456	32 564	min
-1	490c	18	490	18.43	15.44	-74.56	76.14	1.3348	-2.0181	281.7	11 458	32 564	
-1	495c	19	495	20.01	11.53	-73.94	74.84	1.23	-1.8776	278.8	12 460	33 565	
-1	500c	20	500	21.85	7.03	-72.81	73.15	1.1283	-1.7326	275.5	12 462	33 566	
-1	510c	22	510	26.35	-3.46	-69.18	69.27	0.947	-1.45	267.1	13 466	33 569	
-1	519c	23	520	29.03	-9.28	-66.77	67.41	0.8717	-1.3198	262.0	13 468	34 570	Bm
-1	529c	25	530	35.11	-21.23	-61.02	64.61	0.7577	-1.0951	250.8	14 470	34 573	
-1	539c	27	540	41.93	-32.62	-54.37	63.4	0.6884	-0.9185	239.0	14 473	35 577	
-1	545c	29	545	49.19	-42.37	-47.18	63.41	0.655	-0.7835	228.0	15 475	36 582	
-1	549c	29	550	49.19	-42.37	-47.18	63.41	0.655	-0.7835	228.0	15 475	36 582	
-1	555c	31	555	56.57	-49.4	-39.81	63.45	0.6502	-0.6814	218.8	15 476	37 587	
3	415	32	560	60.11	-54.25	-30.85	62.41	0.6386	-0.6052	209.6	15 478	38 594	
W0	380	770	99.99	0.0	0.0	0.0	0.9996	-0.3999	0.0		$B_c=1,000$		
N0	380	770	3.99	0.0	0.0	0.0	0.9996	-0.3999	0.0		$x_c=0,000$		

CEX41-7N

TUB registration: 20201101-CEX4/CEX4L0NP.PDF /.PS
application for evaluation and measurement of display or print output

TUB material: code=rha4ta

see similar files: <http://farbe.li-tu-berlin.de/CEX4/CEX4.HTM>
technical information: <http://farbe.li-tu-berlin.de> or <http://130.149.60.45/~farbmetrik>

Ostwald optimal colours (o), maximum (m) $C_{AB,10}$ for C00, $Y_{N,10}=0$, $Y_{W,10}=100$, $Y_m=520_770$													
i_1, λ_1	i_2, λ_2	X_{10}	Y_{10}	Z_{10}	x_{10}	y_{10}	z_{10}	$h_{xy,10}$	i_d, λ_d	i_c, λ_c	Code		
1 405	31 556	31.98	51.78	103.14	0.1711	0.277	0.5518	196.8	15 475	37 586	Cm		
6 435	31 558	28.66	52.82	81.59	0.1757	0.3239	0.5003	177.9	16 480	44 624			
9 450	32 560	24.39	53.05	55.15	0.1839	0.4	0.4159	147.3	17 487	-1 487c			
12 460	32 563	22.19	54.1	30.54	0.2077	0.5063	0.2858	118.6	20 504	-1 504c			
12 465	33 566	24.0	56.19	30.54	0.2167	0.5074	0.2758	116.4	21 507	-1 507c			
13 470	34 572	26.86	59.45	24.02	0.2434	0.5388	0.2176	106.9	23 519	-1 519c	Gm		
14 475	36 582	33.85	65.18	18.67	0.2876	0.5537	0.1586	95.5	26 534	-1 534c			
16 480	44 622	60.31	78.48	11.51	0.4012	0.0766	0.658	31 556	0 404				
17 485	-1 485c	70.72	81.46	9.3	0.4379	0.5044	0.0576	55.4	32 562	11 456	max		
18 490	-1 490c	70.67	79.85	7.73	0.4465	0.5045	0.0488	53.6	32 563	11 459			
19 495	-1 495c	70.66	78.05	6.63	0.4548	0.5024	0.0427	51.7	32 564	12 461			
20 500	-1 500c	70.62	76.06	5.87	0.4629	0.4985	0.0384	49.6	33 565	12 463			
22 510	-1 510c	70.32	71.49	4.98	0.479	0.4869	0.0339	44.8	33 567	13 466			
24 520	-1 520c	69.46	66.06	4.54	0.4959	0.4716	0.0324	39.4	34 570	13 468	Ym		
26 530	-1 530c	67.74	59.74	4.32	0.5139	0.4532	0.0327	33.3	34 574	14 471			
28 540	-1 540c	64.9	52.56	4.21	0.5334	0.4319	0.0346	26.8	35 578	14 473			
28 545	-1 544c	64.9	52.56	4.21	0.5334	0.4319	0.0346	26.8	35 578	14 473			
29 550	-1 549c	63.02	48.76	4.19	0.5433	0.4204	0.0361	23.5	36 580	14 474			
31 555	-1 555c	58.23	41.03	4.18	0.5629	0.3966	0.0404	17.0	37 585	15 475			
31 560	9 447	68.2	42.55	54.35	0.4131	0.2577	0.3291	329.1	-1 487c	17 487			
31 556	1 405	65.29	48.21	13.0	0.5161	0.3811	0.1027	16.7	37 586	15 475	Rm		
31 558	6 435	68.62	47.17	34.55	0.4564	0.3137	0.2298	357.9	44 624	16 480			
32 560	9 450	72.88	46.94	60.98	0.4031	0.2596	0.3372	327.3	-1 487c	17 487			
32 563	12 460	75.08	45.89	85.59	0.3634	0.2221	0.4143	298.7	-1 504c	20 504			
33 566	12 465	73.27	43.8	85.59	0.3615	0.2161	0.4223	296.4	-1 507c	21 507			
34 572	13 470	70.42	40.54	92.12	0.3467	0.1996	0.4536	286.9	-1 519c	23 519	Mm		
36 582	14 475	63.43	34.81	97.47	0.324	0.1778	0.498	275.5	-1 534c	26 534			
44 622	16 480	36.96	21.51	104.62	0.2266	0.1319	0.6414	245.9	0 404	31 556			
-1 485c	17 485	26.56	18.53	106.83	0.1748	0.122	0.7031	235.4	11 456	32 562	min		
-1 490c	18 490	26.6	20.14	108.41	0.1714	0.1298	0.6987	233.7	11 459	32 563			
-1 495c	19 495	26.62	21.94	109.51	0.1684	0.1388	0.6927	231.7	12 461	32 564			
-1 500c	20 500	26.66	23.93	110.27	0.1657	0.1487	0.6854	229.6	12 463	33 565			
-1 510c	22 510	26.96	28.5	111.15	0.1618	0.171	0.667	224.9	13 466	33 567			
-1 520c	24 520	27.82	33.93	111.6	0.1604	0.1957	0.6437	219.4	13 468	34 570	Bm		
-1 530c	26 530	29.54	40.25	111.82	0.1626	0.2216	0.6157	213.4	14 471	34 574			
-1 540c	28 540	32.37	47.43	111.92	0.1688	0.2473	0.5837	206.8	14 473	35 578			
-1 544c	28 545	32.37	47.43	111.92	0.1688	0.2473	0.5837	206.8	14 473	35 578			
-1 549c	29 550	34.26	51.23	111.95	0.1735	0.2594	0.5669	203.5	14 474	36 580			
-1 555c	31 555	39.05	58.96	111.96	0.1859	0.2808	0.5332	197.0	15 475	37 585			
9 447	31 560	29.07	57.44	61.79	0.196	0.3873	0.4166	149.1	17 487	-1 487c			
W0 380	770	97.28	99.99	116.14	0.3103	0.319	0.3705	0.0					
N0 380	770	3.89	3.99	4.64	0.3103	0.319	0.3705	0.0					

CEX40-7N

TUB-test chart CEX4; Hue circle of the *Ostwald* optimal colours with Y values, $Y_{N,10}=0,0$, $Y_{W,10}=100$
Data: XYZ and $YABC_{AB}h_{AB}$ as table with different wavelength, C00-10

1-001500-F0

Ostwald optimal colours (o), maximum (m) $C_{AB,10}$ for C00, $Y_{N,10}=0$, $Y_{W,10}=100$, $Y_m=520_770$													
i_1, λ_1	i_2, λ_2	Y_{10}	A_{10}	B_{10}	$C_{AB,10}$	a_{10}	b_{10}	$h_{xy,10}$	i_d, λ_d	i_c, λ_c	Code		
1 405	31 556	51.78	-45.95	-42.98	62.92	0.6175	-0.7964	223.0	15 475	37 586	Cm		
6 435	31 558	52.82	-56.8	-20.23	60.3	0.5424	-0.6176	199.6	16 480	44 624			
9 450	32 560	53.05	-68.02	6.46	68.33	0.4597	-0.4157	174.5	17 487	-1 487c			
12 460	32 563	54.1	-76.06	32.28	82.63	0.4102	-0.2257	157.0	20 504	-1 504c			
12 465	33 566	56.19	-76.63	34.71	84.13	0.427	-0.2173	155.6	21 507	-1 507c			
13 470	34 572	59.45	-77.41	45.02	89.55	0.4517	-0.1615	149.8	23 519	-1 519c	Gm		
14 475	36 582	65.18	-73.87	57.01	93.31	0.5192	-0.1145	142.3	26 534	-1 534c			
16 480	44 622	78.48	-40.04	79.6	89.11	0.7684	-0.0586	116.7	31 556	0 404			
17 485	-1 485c	81.46	-21.28	85.27	87.89	0.868	-0.0456	104.0	32 562	11 456	max		
18 490	-1 490c	79.85	-17.5	84.98	86.77	0.8848	-0.0387	101.6	32 563	11 459			
19 495	-1 495c	78.05	-13.17	83.99	85.02	0.905	-0.0339	98.9	32 564	12 461			
20 500	-1 500c	76.06	-8.42	82.44	82.87	0.9282	-0.0308	95.8	33 565	12 463			
22 510	-1 510c	71.49	1.94	78.02	78.04	0.9834	-0.0278	88.5	33 567	13 466			
24 520	-1 520c	66.06	12.99	72.16	73.32	1.0512	-0.0275	79.7	34 570	13 468	Ym		
26 530	-1 530c	59.74	24.05	65.05	69.35	1.1335	-0.0289	69.7	34 574	14 471			
28 540	-1 540c	52.56	34.43	56.81	66.43	1.2345	-0.032	58.7	35 578	14 473			
28 545	-1 544c	52.56	34.43	56.81	66.43	1.2345	-0.032	58.7	35 578	14 473			
29 550	-1 549c	48.76	38.94	52.43	65.31	1.2919	-0.0343	53.3	36 580	14 474			
31 555	-1 555c	41.03	45.78	43.46	63.12	1.4188	-0.0407	43.5	37 585	15 475			
31 560	9 447	42.55	67.0	-4.92	67.18	1.6024	-0.5107	355.7	-1 487c	17 487			
31 556	1 405	48.21	45.96	42.98	62.93	1.3538	-0.1078	43.0	37 586	15 475	Rm		
31 558	6 435	47.17	56.8	20.23	60.29	1.4541	-0.2928	19.6	44 624	16 480			
32 560	9 450	46.94	68.01	-6.45	68.32	1.5521	-0.5194	354.5	-1 487c	17 487			
32 563	12 460	45.89	76.04	-32.27	82.6	1.6353	-0.7457	337.0	-1 504c	20 504			
33 566	12 465	43.8	76.61	-34.7	84.1	1.6722	-0.7813	335.6	-1 507c	21 507			
34 572	13 470	40.54	77.39	-45.0	89.52	1.7361	-0.9085	329.8	-1 519c	23 519	Mm		
36 582	14 475	34.81	73.84	-56.99	93.27	1.8209	-1.1192	322.3	-1 534c	26 534			
44 622	16 480	21.51	40.02	-79.56	89.06	1.7165	-1.9433	296.7	0 404	31 556			
-1 485c	17 485	18.53	21.27	-85.22	87.83	1.4314	-2.3032	284.0	11 456	32 562	min		
-1 490c	18 490	20.14	17.49	-84.94	86.72	1.3199	-2.1512	281.6	11 459	32 563			
-1 495c	19 495	21.94	13.16	-83.95	84.98	1.2126	-1.9949	278.9	12 461	32 564			
-1 500c	20 500	23.93	8.41	-82.4	82.83	1.1132	-1.8415	275.8	12 463	33 565			
-1 510c	22 510	28.5	-1.94	-77.99	78.01	0.9452	-1.5586	268.5	13 466	33 567			
-1 520c	24 520	33.93	-12.98	-72.14	73.3	0.8194	-1.3147	259.7	13 468	34 570	Bm		
-1 530c	26 530	40.25	-24.04	-65.03	69.34	0.7336	-1.1107	249.7	14 471	34 574			
-1 540c	28 540	47.43	-34.42	-56.8	66.42	0.6822	-0.9434	238.7	14 473	35 578			
-1 544c	28 545	47.43	-34.42	-56.8	66.42	0.6822	-0.9434	238.7	14 473	35 578			
-1 549c	29 550	51.23	-38.93	-52.42	65.3	0.6685	-0.8737	233.3	14 474	36 580			
-1 555c	31 555	58.96	-45.77	-43.46	63.12	0.662	-0.7592	223.5	15 475	37 585			
9 447	31 560	57.44	-67.0	4.92	67.18	0.506	-0.4301	175.7	17 487	-1 487c			
W0 380	770	99.99	0.0	0.0	0.0	0.9725	-0.4644	0.0	$B_c=1,000$				
N0 380	770	3.99	0.0	0.0	0.0	0.9725	-0.4644	0.0	$x_c=0,000$				

CEX41-7N

TUB registration: 20201101-CEX4/CEX4L0NP.PDF /.PS
application for evaluation and measurement of display or print output

TUB material:

see similar files: <http://farbe.li-tu-berlin.de/CEX4/CEX4.HTM>
technical information: <http://farbe.li-tu-berlin.de> or <http://130.149.60.45/~farbmetrik>

Ostwald optimal colours (o), maximum (m) $C_{AB,10}$ for P00, $Y_{N,10}=0$, $Y_{W,10}=100$, $Y_m=520_770$														
i_1, λ_1	i_2, λ_2	X_{10}	Y_{10}	Z_{10}	x_{10}	y_{10}	z_{10}	$h_{xy,10}$	i_d, λ_d	i_c, λ_c	Code			
0	405	32	562	30.0	51.03	72.5	0.1954	0.3323	0.4722	186.9	15 479	38 591	Cm	
7	435	32	563	26.27	51.44	50.42	0.205	0.4014	0.3935	162.5	17 485	-1 485c		
9	450	32	564	24.93	52.14	38.52	0.2157	0.451	0.3332	145.8	18 491	-1 491c		
12	460	33	567	23.14	52.25	21.98	0.2377	0.5365	0.2257	123.7	21 505	-1 505c		
13	465	33	569	24.08	53.51	17.5	0.2532	0.5626	0.184	117.1	23 515	-1 515c		
13	470	34	572	26.6	55.97	17.5	0.2658	0.5592	0.1748	114.6	23 518	-1 518c	Gm	
15	475	35	579	30.79	59.06	10.93	0.3055	0.5859	0.1084	103.3	26 534	-1 534c		
16	480	38	593	43.2	67.08	8.77	0.3628	0.5634	0.0736	89.4	29 547	-1 547c		
17	485	-1	485c	80.45	84.04	7.17	0.4686	0.4895	0.0417	51.7	33 566	11 457	max	
17	490	-1	489c	80.45	84.04	7.17	0.4686	0.4895	0.0417	51.7	33 566	11 457		
19	495	-1	495c	80.4	81.41	5.12	0.4816	0.4876	0.0307	48.2	33 567	12 461		
19	500	-1	499c	80.4	81.41	5.12	0.4816	0.4876	0.0307	48.2	33 567	12 461		
22	510	-1	510c	80.09	75.61	3.7	0.5024	0.4743	0.0232	40.6	34 570	13 467		
23	520	-1	519c	79.77	73.11	3.45	0.5102	0.4676	0.0221	37.6	34 572	13 469	Ym	
26	530	-1	530c	77.58	64.15	3.05	0.5357	0.443	0.0211	27.3	35 577	14 473		
28	540	-1	540c	74.85	57.25	2.95	0.5542	0.4238	0.0219	20.2	36 580	15 475		
28	545	-1	544c	74.85	57.25	2.95	0.5542	0.4238	0.0219	20.2	36 580	15 475		
29	550	-1	549c	73.06	53.65	2.93	0.5635	0.4137	0.0226	16.8	36 583	15 476		
31	555	-1	555c	68.49	46.26	2.92	0.582	0.3931	0.0248	10.3	37 587	15 478		
32	560	-1	560c	65.67	42.54	2.92	0.5908	0.3827	0.0263	7.4	38 590	15 479		
32	562	0	405	72.36	48.96	8.74	0.5563	0.3764	0.0672	6.9	38 591	15 479	Rm	
32	563	7	435	76.09	48.55	30.82	0.4894	0.3123	0.1982	342.6	-1 485c	17 485		
32	564	9	450	77.43	47.85	42.73	0.4608	0.2848	0.2543	325.8	-1 491c	18 491		
33	567	12	460	79.22	47.74	59.27	0.4253	0.2563	0.3182	303.8	-1 505c	21 505		
33	569	13	465	78.28	46.48	63.75	0.4152	0.2465	0.3381	297.1	-1 515c	23 515		
34	572	13	470	75.77	44.02	63.75	0.4128	0.2398	0.3473	294.7	-1 518c	23 518	Mm	
35	579	15	475	71.57	40.93	70.31	0.3914	0.2238	0.3846	283.3	-1 534c	26 534		
38	593	16	480	59.17	32.91	72.47	0.3595	0.2	0.4404	269.5	-1 547c	29 547		
-1	485c	17	485	21.91	15.95	74.08	0.1957	0.1425	0.6617	231.8	11 457	33 566	min	
-1	489c	17	490	21.91	15.95	74.08	0.1957	0.1425	0.6617	231.8	11 457	33 566		
-1	495c	19	495	21.96	18.58	76.12	0.1882	0.1592	0.6524	228.2	12 461	33 567		
-1	499c	19	500	21.96	18.58	76.12	0.1882	0.1592	0.6524	228.2	12 461	33 567		
-1	510c	22	510	22.27	24.38	77.54	0.1793	0.1963	0.6243	220.7	13 467	34 570		
-1	519c	23	520	22.6	26.88	77.79	0.1775	0.2112	0.6111	217.6	13 469	34 572	Bm	
-1	530c	26	530	24.79	35.84	78.19	0.1785	0.2581	0.5632	207.3	14 473	35 577		
-1	540c	28	540	27.51	42.74	78.29	0.1852	0.2877	0.527	200.2	15 475	36 580		
-1	544c	28	545	27.51	42.74	78.29	0.1852	0.2877	0.527	200.2	15 475	36 580		
-1	549c	29	550	29.3	46.34	78.31	0.1903	0.301	0.5086	196.8	15 476	36 583		
-1	555c	31	555	33.88	53.73	78.32	0.2041	0.3238	0.472	190.4	15 478	37 587		
-1	560c	32	560	36.69	57.45	78.32	0.2127	0.333	0.4541	187.4	15 479	38 590		
W0	380	770	102.37	99.99	81.25	0.3609	0.3525	0.2864	0.0					
N0	380	770	4.09	3.99	3.25	0.3609	0.3525	0.2864	0.0					

CEX40-7N

TUB-test chart CEX4; Hue circle of the *Ostwald* optimal colours with Y values, $Y_{N,10}=0,0$, $Y_{W,10}=100$
Data: XYZ and $YABC_{AB}h_{AB}$ as table with different wavelength, P00-10

1-001600-F0

Ostwald optimal colours (o), maximum (m) $C_{AB,10}$ for P00, $Y_{N,10}=0$, $Y_{W,10}=100$, $Y_m=520_770$														
i_1, λ_1	i_2, λ_2	Y_{10}	A_{10}	B_{10}	$C_{AB,10}$	a_{10}	b_{10}	$h_{xy,10}$	i_d, λ_d	i_c, λ_c	Code			
0	405	32	562	51.03	-55.59	-31.02	63.66	0.5877	-0.5681	209.1	15 479	38 591	Cm	
7	435	32	563	51.44	-65.94	-8.62	66.5	0.5106	-0.392	187.4	17 485	-1 485c		
9	450	32	564	52.14	-71.08	3.84	71.19	0.4781	-0.2954	176.9	18 491	-1 491c		
12	460	33	567	52.25	-75.84	20.46	78.55	0.4429	-0.1682	164.8	21 505	-1 505c		
13	465	33	569	53.51	-76.7	25.96	80.98	0.45	-0.1308	161.2	23 515	-1 515c		
13	470	34	572	55.97	-76.72	27.97	81.66	0.4751	-0.125	159.9	23 518	-1 518c	Gm	
15	475	35	579	59.06	-74.14	37.04	82.88	0.5213	-0.074	153.4	26 534	-1 534c		
16	480	38	593	67.08	-63.66	45.71	78.37	0.6438	-0.0523	144.3	29 547	-1 547c		
17	485	-1	485c	84.04	-13.93	61.09	62.66	0.9571	-0.0341	102.8	33 566	11 457	max	
17	490	-1	489c	84.04	-13.93	61.09	62.66	0.9571	-0.0341	102.8	33 566	11 457		
19	495	-1	495c	81.41	-7.33	61.0	61.44	0.9874	-0.0251	96.8	33 567	12 461		
19	500	-1	499c	81.41	-7.33	61.0	61.44	0.9874	-0.0251	96.8	33 567	12 461		
22	510	-1	510c	75.61	6.74	57.71	58.1	1.0591	-0.0196	83.3	34 570	13 467		
23	520	-1	519c	73.11	12.32	55.92	57.27	1.0908	-0.0189	77.5	34 572	13 469	Ym	
26	530	-1	530c	64.15	29.75	49.05	57.37	1.2089	-0.019	58.7	35 577	14 473		
28	540	-1	540c	57.25	40.6	43.55	59.54	1.3071	-0.0206	47.0	36 580	15 475		
28	545	-1	544c	57.25	40.6	43.55	59.54	1.3071	-0.0206	47.0	36 580	15 475		
29	550	-1	549c	53.65	45.34	40.64	60.89	1.3615	-0.0218	41.8	36 583	15 476		
31	555	-1	555c	46.26	52.81	34.65	63.16	1.48	-0.0252	33.2	37 587	15 478		
32	560	-1	560c	42.54	55.28	31.63	63.69	1.5432	-0.0274	29.7	38 590	15 479		
32	562	0	405	48.96	55.59	31.03	63.66	1.4776	-0.0714	29.1	38 591	15 479	Rm	
32	563	7	435	48.55	65.93	8.62	66.5	1.5666	-0.2538	7.4	-1 485c	17 485		
32	564	9	450	47.85	71.07	-3.84	71.18	1.6175	-0.357	356.9	-1 491c	18 491		
33	567	12	460	47.74	75.82	-20.46	78.53	1.6587	-0.4963	344.8	-1 505c	21 505		
33	569	13	465	46.48	76.68	-25.96	80.96	1.6833	-0.5482	341.2	-1 515c	23 515		
34	572	13	470	44.02	76.7	-27.96	81.64	1.7204	-0.5789	339.9	-1 518c	23 518	Mm	
35	579	15	475	40.93	74.12	-37.03	82.86	1.7477	-0.6868	333.4	-1 534c	26 534		
38	593	16	480	32.91	63.64	-45.7	78.35	1.7968	-0.8803	324.3	-1 547c	29 547		
-1	485c	17	485	15.95	13.93	-61.06	62.63	1.3727	-1.8559	282.8	11 457	33 566	min	
-1	489c	17	490	15.95	13.93	-61.06	62.63	1.3727	-1.8559	282.8	11 457	33 566		
-1	495c	19	495	18.58	7.33	-60.97	61.41	1.1812	-1.6373	276.8	12 461	33 567		
-1	499c	19	500	18.58	7.33	-60.97	61.41	1.1812	-1.6373	276.8	12 461	33 567		
-1	510c	22	510	24.38	-6.74	-57.69	58.08	0.9129	-1.2712	263.3	13 467	34 570		
-1	519c	23	520	26.88	-12.31	-55.91	57.25	0.8402	-1.1567	257.5	13 469	34 572	Bm	
-1	530c	26	530	35.84	-29.74	-49.05	57.36	0.6914	-0.8723	238.7	14 473	35 577		
-1	540c	28	540	42.74	-40.6	-43.54	59.53	0.6435	-0.7324	227.0	15 475	36 580		
-1	544c	28	545	42.74	-40.6	-43.54	59.53	0.6435	-0.7324	227.0	15 475	36 580		
-1	549c	29	550	46.34	-45.34	-40.64	60.89	0.6321	-0.6756	221.8	15 476	36 583		
-1	555c	31	555	53.73	-52.81	-34.65	63.16	0.6303	-0.5828	213.2	15 478	37 587		
-1	560c	32	560	57.45	-55.28	-31.63	63.69	0.6385	-0.5451	209.7	15 479	38 590		

see similar files: <http://farbe.li-tu-berlin.de/CEX4/CEX4.HTM>
technical information: <http://farbe.li-tu-berlin.de> or <http://130.149.60.45/~farbmetrik>

Ostwald optimal colours (o), maximum (m) $C_{AB,10}$ for Q_{00} , $Y_{N,10}=0$, $Y_{W,10}=100$, $Y_m=520_770$														
i_1, λ_1	i_2, λ_2	X_{10}	Y_{10}	Z_{10}	x_{10}	y_{10}	z_{10}	$h_{xy,10}$	i_d, λ_d	i_c, λ_c	Code			
1	405	31	556	32.34	52.14	104.12	0.1714	0.2764	0.552	196.1	15 475 37 587	Cm		
7	435	31	558	26.53	52.8	70.4	0.1772	0.3526	0.4701	164.6	16 482 -1 482c			
10	450	32	560	22.4	52.84	44.15	0.1876	0.4425	0.3698	133.8	18 493 -1 493c			
12	460	32	563	21.89	54.31	29.13	0.2078	0.5156	0.2765	116.8	21 506 -1 506c			
13	465	33	566	22.71	55.64	22.99	0.2241	0.549	0.2268	110.0	23 515 -1 515c			
13	470	34	572	26.57	59.63	22.99	0.2434	0.546	0.2105	105.9	24 520 -1 520c	Gm		
15	475	36	583	33.4	64.53	14.21	0.2978	0.5754	0.1267	92.4	27 536 -1 536c			
15	480	45	629	63.45	81.28	14.21	0.3992	0.5113	0.0894	65.1	31 557 2 414			
17	485	-1	485c	70.45	81.83	9.36	0.4358	0.5062	0.0579	56.2	32 561 11 455	max		
17	490	-1	489c	70.45	81.83	9.36	0.4358	0.5062	0.0579	56.2	32 561 11 455			
18	495	-1	494c	70.4	80.32	7.88	0.4438	0.5063	0.0497	54.5	32 562 11 458			
19	500	-1	499c	70.39	78.57	6.82	0.4518	0.5043	0.0438	52.7	32 563 12 460			
21	510	-1	509c	70.24	74.28	5.51	0.4681	0.495	0.0367	48.2	33 566 12 464			
24	520	-1	520c	69.08	65.75	4.64	0.4952	0.4714	0.0332	39.7	34 570 13 468	Ym		
26	530	-1	530c	67.25	58.99	4.4	0.5147	0.4515	0.0337	33.2	34 574 14 471			
27	540	-1	539c	65.95	55.4	4.33	0.5247	0.4407	0.0345	29.9	35 576 14 472			
29	545	-1	545c	62.54	48.02	4.27	0.5446	0.4181	0.0372	23.3	36 581 14 474			
30	550	-1	550c	60.41	44.31	4.26	0.5542	0.4065	0.0391	20.1	36 583 15 475			
30	555	-1	554c	60.41	44.31	4.26	0.5542	0.4065	0.0391	20.1	36 583 15 475			
31	560	9	447	68.87	42.24	58.7	0.4055	0.2487	0.3456	325.0	-1 488c 17 488			
31	556	1	405	65.3	47.85	14.29	0.5123	0.3754	0.1121	16.1	37 587 15 475	Rm		
31	558	7	435	71.11	47.19	48.01	0.4275	0.2837	0.2887	344.6	-1 482c 16 482			
32	560	10	450	75.24	47.15	74.26	0.3826	0.2397	0.3776	313.9	-1 493c 18 493			
32	563	12	460	75.75	45.68	89.29	0.3594	0.2167	0.4237	296.9	-1 506c 21 506			
33	566	13	465	74.93	44.35	95.43	0.3489	0.2065	0.4444	290.0	-1 515c 23 515			
34	572	13	470	71.07	40.36	95.43	0.3435	0.1951	0.4613	285.9	-1 520c 24 520	Mm		
36	583	15	475	64.24	35.46	104.21	0.315	0.1739	0.511	272.4	-1 536c 27 536			
45	629	15	480	34.19	18.71	104.21	0.2176	0.1191	0.6632	245.1	2 414 31 557			
-1	485c	17	485	27.19	18.16	109.05	0.1761	0.1176	0.7062	236.2	11 455 32 561	min		
-1	489c	17	490	27.19	18.16	109.05	0.1761	0.1176	0.7062	236.2	11 455 32 561			
-1	494c	18	495	27.24	19.67	110.53	0.173	0.1249	0.702	234.6	11 458 32 562			
-1	499c	19	500	27.25	21.42	111.59	0.17	0.1336	0.6962	232.7	12 460 32 563			
-1	509c	21	510	27.4	25.71	112.9	0.165	0.1548	0.68	228.3	12 464 33 566			
-1	520c	24	520	28.56	34.24	113.77	0.1617	0.1939	0.6443	219.7	13 468 34 570	Bm		
-1	530c	26	530	30.39	41.0	114.02	0.1639	0.2211	0.6149	213.3	14 471 34 574			
-1	539c	27	540	31.69	44.59	114.08	0.1664	0.2342	0.5992	209.9	14 472 35 576			
-1	545c	29	545	35.1	51.97	114.14	0.1744	0.2583	0.5672	203.3	14 474 36 581			
-1	550c	30	550	37.23	55.68	114.15	0.1798	0.2688	0.5513	200.2	15 475 36 583			
-1	554c	30	555	37.23	55.68	114.15	0.1798	0.2688	0.5513	200.2	15 475 36 583			
9	447	31	560	28.77	57.75	59.71	0.1967	0.3949	0.4083	144.9	17 488 -1 488c			
W0	380	770	97.65	100.0	118.42	0.3089	0.3163	0.3746	0.0					
N0	380	770	3.9	4.0	4.73	0.3089	0.3163	0.3746	0.0					

CEX40-7N

TUB-test chart CEX4; Hue circle of the *Ostwald* optimal colours with Y values, $Y_{N,10}=0,0$, $Y_{W,10}=100$
Data: XYZ and $YABC_{AB}h_{AB}$ as table with different wavelength, Q00-10

1-001700-F0

Ostwald optimal colours (o), maximum (m) C _{AB,10} for Q00, Y _{N,10} =0, Y _{W,10} =100, Y _m =520_770														
i ₁ , λ ₁	i ₂ , λ ₂	Y ₁₀	A ₁₀	B ₁₀	C _{AB,10}	a ₁₀	b ₁₀	h _{xy,10}	i _d , λ _d	i _c , λ _c	Code			
1 405	31 556	52.14	-46.44	-42.35	62.85	0.6199	-0.7983	222.3	15 475	37 587	Cm			
7 435	31 558	52.8	-62.54	-7.86	63.03	0.5024	-0.5331	187.1	16 482	-1 482c				
10 450	32 560	52.84	-72.96	18.41	75.25	0.4238	-0.3341	165.8	18 493	-1 493c				
12 460	32 563	54.31	-77.83	35.17	85.41	0.403	-0.2145	155.6	21 506	-1 506c				
13 465	33 566	55.64	-79.02	42.88	89.91	0.4081	-0.1652	151.5	23 515	-1 515c				
13 470	34 572	59.63	-79.08	47.6	92.31	0.4456	-0.1542	148.9	24 520	-1 520c	Gm			
15 475	36 583	64.53	-74.01	62.19	96.67	0.5174	-0.088	139.9	27 536	-1 536c				
15 480	45 629	81.28	-39.76	82.02	91.15	0.7804	-0.0699	115.8	31 557	2 414				
17 485	-1 485c	81.83	-23.61	87.51	90.64	0.8607	-0.0457	105.1	32 561	11 455	max			
17 490	-1 489c	81.83	-23.61	87.51	90.64	0.8607	-0.0457	105.1	32 561	11 455				
18 495	-1 494c	80.32	-20.04	87.2	89.47	0.8763	-0.0392	102.9	32 562	11 458				
19 500	-1 499c	78.57	-15.82	86.2	87.64	0.8956	-0.0347	100.4	32 563	12 460				
21 510	-1 509c	74.28	-5.72	82.43	82.63	0.9453	-0.0296	93.9	33 566	12 464				
24 520	-1 520c	65.75	12.2	73.2	74.21	1.0504	-0.0282	80.5	34 570	13 468	Ym			
26 530	-1 530c	58.99	24.11	65.44	69.74	1.1396	-0.0298	69.7	34 574	14 471				
27 540	-1 539c	55.4	29.64	61.25	68.04	1.1902	-0.0313	64.1	35 576	14 472				
29 545	-1 545c	48.02	39.13	52.57	65.54	1.3022	-0.0355	53.3	36 581	14 474				
30 550	-1 550c	44.31	42.84	48.2	64.49	1.3629	-0.0384	48.3	36 583	15 475				
30 555	-1 554c	44.31	42.84	48.2	64.49	1.3629	-0.0384	48.3	36 583	15 475				
31 560	9 447	42.24	69.03	-8.67	69.57	1.6299	-0.5556	352.8	-1 488c	17 488				
31 556	1 405	47.85	46.44	42.35	62.85	1.3644	-0.1194	42.3	37 587	15 475	Rm			
31 558	7 435	47.19	62.54	7.86	63.03	1.5062	-0.4068	7.1	-1 482c	16 482				
32 560	10 450	47.15	72.95	-18.4	75.23	1.595	-0.6297	345.8	-1 493c	18 493				
32 563	12 460	45.68	77.81	-35.16	85.38	1.6574	-0.7814	335.6	-1 506c	21 506				
33 566	13 465	44.35	78.99	-42.87	89.88	1.6886	-0.8602	331.5	-1 515c	23 515				
34 572	13 470	40.36	79.06	-47.59	92.28	1.7595	-0.9451	328.9	-1 520c	24 520	Mm			
36 583	15 475	35.46	73.98	-62.16	96.63	1.8106	-1.1747	319.9	-1 536c	27 536				
45 629	15 480	18.71	39.74	-81.96	91.09	1.8256	-2.2254	295.8	2 414	31 557				
-1 485c	17 485	18.16	23.6	-87.45	90.58	1.4958	-2.3992	285.1	11 455	32 561	min			
-1 489c	17 490	18.16	23.6	-87.45	90.58	1.4958	-2.3992	285.1	11 455	32 561				
-1 494c	18 495	19.67	20.02	-87.15	89.42	1.3833	-2.2453	282.9	11 458	32 562				
-1 499c	19 500	21.42	15.81	-86.15	87.59	1.2715	-2.0822	280.4	12 460	32 563				
-1 509c	21 510	25.71	5.71	-82.39	82.59	1.0651	-1.7554	273.9	12 464	33 566				
-1 520c	24 520	34.24	-12.19	-73.18	74.19	0.8336	-1.3284	260.5	13 468	34 570	Bm			
-1 530c	26 530	41.0	-24.1	-65.43	69.72	0.741	-1.1118	249.7	14 471	34 574				
-1 539c	27 540	44.59	-29.63	-61.23	68.03	0.7103	-1.0227	244.1	14 472	35 576				
-1 545c	29 545	51.97	-39.13	-52.56	65.53	0.675	-0.878	233.3	14 474	36 581				
-1 550c	30 550	55.68	-42.84	-48.19	64.48	0.6684	-0.8197	228.3	15 475	36 583				
-1 554c	30 555	55.68	-42.84	-48.19	64.48	0.6684	-0.8197	228.3	15 475	36 583				
9 447	31 560	57.75	-69.04	8.67	69.58	0.498	-0.4134	172.8	17 488	-1 488c				
W0 380	770	100.0	0.0	0.0	0.0	0.9761	-0.4735	0.0	B _c =1,000					
N0 380	770	4.0	0.0	0.0	0.0	0.9761	-0.4735	0.0	x _c =0,000					