

DÉCLARATION DE PERFORMANCES N° SIG 13 C

Code identique du produit: SIG13C

Utilisation prévue: Panneaux pour les panneaux de signalisation verticaux à plan d'image rétro-réfléchissant, Classe 3 Diamond Grade.

Fabricant :

Signco BV
Jozef De Blockstraat 74
2830 Willebroek

Le système d'évaluation et de vérification de la conformité des performances:

L'organisme notifié **PROCERTUS CE 0965** a exécuté les tâches selon le système 1 et a émis le certificat de constance des performances **0965-CPR-12899/2935**, le certificat de conformité du contrôle de la production en usine et les rapports sur les tests et les calculs.

Les performances indiquées des produits sont repris dans le tableau ci-dessous, selon les spécifications techniques harmonisées de la NBN EN 12899-1:2007.

Caractéristiques essentielles	Performances	Spécifications techniques harmonisées
Résistance aux charges horizontales		
Éléments de fixation	Conforme	NBN EN 12899-1:2007
Actions du vent	WL4	NBN EN 12899-1:2007
Déformation temporaire : flexion	TDB5	NBN EN 12899-1:2007
Actions suite au déneigement	NPD	NBN EN 12899-1:2007
Charge concentrée	PL2	NBN EN 12899-1:2007
Déformation permanente	Conforme	NBN EN 12899-1:2007
Coefficient partiel de sécurité	PAF 1	NBN EN 12899-1:2007
Caractéristiques visuelles		
Panneaux rétro-réfléchissants		
Coordonnées colorimétriques à la lumière du jour & indice de luminance	Table 1.2 (en annexe)	ETA 18-0405 ETA 17-0490 EAD 120001-01-0106:2016
Coefficient rétro-réfléchissant	Table A.1, A.2, A.3 et Annex 1 (en annexe)	ETA 18-0405 ETA 17-0490 EAD 120001-01-0106:2016
Durabilité		
Résistance à l'altération du matériel du plan de l'image		
Coordonnées colorimétriques à la lumière du jour & indice de luminance	Table 1.3 (en annexe)	ETA 18-0405 ETA 17-0490 EAD 120001-01-0106:2016
Coefficient rétro-réfléchissant après exposition	>80% de Table A.1, A.2, A.3 et Annex 1 (en annexe)	ETA 18-0405 ETA 17-0490 EAD 120001-01-0106:2016

Résistance aux chocs	Conforme	NBN EN 12899-1:2007
Résistance à la corrosion	Aluminium SP2	NBN EN 12899-1:2007
NPD: "no performance declared"		

Les performances du produit mentionné ci-dessus sont conformes aux performances déclarées. Conformément au règlement (UE) n° 305/2011, cette déclaration de performance est faite sous la seule responsabilité du fabricant nommé ci-dessus.

Signé pour et au nom du fabricant par:

Signco BV
Friso Haerens, Direct général
Jozef De Blockstraat 74
2830 Willebroek

À Willebroek, le 1 mai 2024



Annexe:

ETA 18-0405:

Colours		Chromaticity Coordinates				Luminance Factor β
		1	2	3	4	
White	x	0.305	0.335	0.325	0.295	≥ 0.40
Tolerance Sphere*	y	0.315	0.345	0.355	0.325	
White Translucent	x	0.305	0.335	0.325	0.295	≥ 0.27
Tolerance Sphere*	y	0.315	0.345	0.355	0.325	
Yellow	x	0.494	0.470	0.513	0.545	≥ 0.24
Tolerance Sphere*	y	0.505	0.480	0.437	0.454	
Yellow Translucent	x	0.494	0.470	0.513	0.545	≥ 0.16
Tolerance Sphere*	y	0.505	0.480	0.437	0.454	
Red	x	0.735	0.700	0.610	0.660	≥ 0.03
Tolerance Sphere*	y	0.265	0.250	0.340	0.340	
Red on Yellow, Fluorescent Yellow or Fluorescent Yellow Green	x	0.735	0.700	0.610	0.660	≥ 0.03
Tolerance Sphere*	y	0.265	0.250	0.340	0.340	
Blue	x	0.130	0.160	0.160	0.130	≥ 0.01
Tolerance Sphere*	y	0.090	0.090	0.140	0.140	
Green	x	0.110	0.170	0.170	0.110	≥ 0.03
Tolerance Sphere*	y	0.415	0.415	0.500	0.500	
Orange	x	0.631	0.560	0.506	0.570	≥ 0.14
Tolerance Sphere	y	0.369	0.360	0.404	0.429	
Brown	x	0.455	0.523	0.479	0.558	0.03-0.09
Tolerance Sphere*	y	0.397	0.429	0.373	0.394	
Grey	x	0.305	0.335	0.325	0.295	0.11-0.18
Tolerance Sphere*	y	0.315	0.345	0.355	0.325	
Dark Green	x	0.313	0.313	0.248	0.127	0.01-0.07
Tolerance Sphere	y	0.682	0.453	0.409	0.557	
Fluorescent yellow reference	x	0.521	0.557	0.479	0.454	≥ 0.38
	y	0.424	0.442	0.520	0.491	
Fluorescent orange reference	x	0.595	0.645	0.570	0.531	≥ 0.25
	y	0.351	0.355	0.429	0.414	
Fluorescent yellow green reference	x	0.387	0.460	0.570	0.376	≥ 0.70
	y	0.610	0.540	0.429	0.568	

* Chromaticity Coordinates are similar to EN 12899-1:2007 Class CR2

Table 1.2: Manufacturer's specification for initial daylight chromaticity and luminance factor

ETA 17-0490:

Colours		Chromaticity Coordinates				Luminance Factor β
		1	2	3	4	
White	x	0.305	0.335	0.325	0.295	≥ 0.40
Tolerance Sphere*	y	0.315	0.345	0.355	0.325	
Yellow	x	0.494	0.470	0.513	0.545	≥ 0.24
Tolerance Sphere*	y	0.505	0.480	0.437	0.454	
Red	x	0.735	0.700	0.610	0.660	≥ 0.03
Tolerance Sphere*	y	0.265	0.250	0.340	0.340	
Red on Yellow	x	0.735	0.700	0.610	0.660	≥ 0.03
Tolerance Sphere*	y	0.265	0.250	0.340	0.340	
Blue	x	0.130	0.160	0.160	0.130	≥ 0.01
Tolerance Sphere*	y	0.090	0.090	0.140	0.140	
Green	x	0.110	0.170	0.170	0.110	≥ 0.03
Tolerance Sphere*	y	0.415	0.415	0.500	0.500	
Orange	x	0.631	0.560	0.506	0.570	≥ 0.14
Tolerance Sphere*	y	0.369	0.360	0.404	0.429	
Brown	x	0.455	0.523	0.479	0.558	0.03-0.09
Tolerance Sphere*	y	0.397	0.429	0.373	0.394	
Grey	x	0.305	0.335	0.325	0.295	0.11-0.18
Tolerance Sphere*	y	0.315	0.345	0.355	0.325	
Dark Green	x	0.313	0.313	0.248	0.127	0.01-0.07
Tolerance Sphere*	y	0.682	0.453	0.409	0.557	

* Chromaticity Coordinates are similar to EN 12899-1:2007 Class CR2

Table 1.2: Manufacturer's specification for initial daylight chromaticity and luminance factor

ETA 18-0405:

Colours		Chromaticity Coordinates				Luminance Factor B
		1	2	3	4	
White Tolerance Sphere*	x y	0.355 0.355	0.305 0.305	0.285 0.325	0.335 0.375	≥ 0.40
White Translucent Tolerance Sphere*	x y	0.355 0.355	0.305 0.305	0.285 0.325	0.335 0.375	≥ 0.27
Yellow Tolerance Sphere*	x y	0.545 0.454	0.487 0.423	0.427 0.483	0.465 0.534	≥ 0.24
Yellow Translucent Tolerance Sphere*	x y	0.545 0.454	0.487 0.423	0.427 0.483	0.465 0.534	≥ 0.16
Red Tolerance Sphere*	x y	0.735 0.265	0.674 0.236	0.569 0.341	0.655 0.345	≥ 0.03
Red on Yellow, Fluorescent Yellow or Fluorescent Yellow Green Tolerance Sphere*	x y	0.735 0.265	0.674 0.236	0.569 0.341	0.655 0.345	≥ 0.03
Blue Tolerance Sphere*	x y	0.078 0.171	0.150 0.220	0.210 0.160	0.137 0.038	≥ 0.01
Green Tolerance Sphere*	x y	0.007 0.703	0.248 0.409	0.177 0.362	0.026 0.399	≥ 0.03
Orange Tolerance Sphere	x y	0.631 0.369	0.560 0.360	0.506 0.404	0.570 0.429	≥ 0.14
Brown Tolerance Sphere*	x y	0.455 0.397	0.523 0.429	0.479 0.373	0.558 0.394	0.03-0.09
Grey Tolerance Sphere*	x y	0.350 0.360	0.300 0.310	0.285 0.325	0.335 0.375	0.11-0.18
Dark Green Tolerance Sphere*	x y	0.313 0.682	0.313 0.453	0.248 0.409	0.127 0.557	0.01-0.07
Fluorescent yellow reference	x y	0.521 0.424	0.557 0.442	0.479 0.520	0.454 0.491	≥ 0.38
Fluorescent orange reference	x y	0.595 0.351	0.645 0.355	0.570 0.429	0.531 0.414	≥ 0.25
Fluorescent yellow green reference	x y	0.387 0.610	0.460 0.540	0.570 0.429	0.376 0.568	≥ 0.70
* Chromaticity Coordinates are similar to EN 12899-1:2007 Class CR1						

Table 1.3: Manufacturer's specification for daylight chromaticity and luminance factor 'in-use'

ETA 17-0490:

Colours		Chromaticity Coordinates				Luminance Factor B
		1	2	3	4	
White Tolerance Sphere*	x y	0.355 0.355	0.305 0.305	0.285 0.325	0.335 0.375	≥ 0.40
Yellow Tolerance Sphere*	x y	0.545 0.454	0.487 0.423	0.427 0.483	0.465 0.534	≥ 0.24
Red Tolerance Sphere*	x y	0.735 0.265	0.674 0.236	0.569 0.341	0.655 0.345	≥ 0.03
Red on Yellow Tolerance Sphere*	x y	0.735 0.265	0.700 0.250	0.610 0.340	0.660 0.340	≥ 0.03
Blue Tolerance Sphere*	x y	0.078 0.171	0.150 0.220	0.210 0.160	0.137 0.038	≥ 0.01
Green Tolerance Sphere*	x y	0.007 0.703	0.248 0.409	0.177 0.362	0.026 0.399	≥ 0.03
Orange Tolerance Sphere*	x y	0.631 0.369	0.560 0.360	0.506 0.404	0.570 0.429	≥ 0.14
Brown Tolerance Sphere*	x y	0.455 0.397	0.523 0.429	0.479 0.373	0.558 0.394	0.03-0.09
Grey Tolerance Sphere*	x y	0.350 0.360	0.300 0.310	0.285 0.325	0.335 0.375	0.11-0.18
Dark Green Tolerance Sphere*	x y	0.313 0.682	0.313 0.453	0.248 0.409	0.127 0.557	0.01-0.07
* Chromaticity Coordinates are similar to EN 12899-1:2007 Class CR1						

Table 1.3: Manufacturer's specification for daylight chromaticity and luminance factor 'in-use'

ETA 18-0405 :

Geometry of measurement		Colour								
α	β_1 ($\beta_2 = 0$)	White	Yellow	Red	Green	Dark Green ‡	Blue	Brown ‡	Orange	Grey ‡
20°	+5°	300	195	60	30	24	19	9	150	150
	+20°	240	155	48	24	19	16	7.2	120	120
	+30°	165	110	33	17	13	11	5.0	83	82
	+40°	30	20	6	3	2.4	2	#	15	15
1°	+5°	35	23	7	3.5	2.8	2.5	1.1	18	17
	+20°	30	20	6	3	2.4	2	#	15	15
	+30°	20	13	4	2	1.6	1.5	#	10	10
	+40°	3.5	2	1	#	#	#	#	2	1.8
1.5°	+5°	15	10	3	1.5	1.2	1	#	7.5	7.5
	+20°	13	8	2.5	1	1.0	#	#	6.5	6.5
	+30°	9	6	2	#	#	#	#	4.5	4.5
	+40°	1.5	1	#	#	#	#	#	1	#
‡ Indicates additional colours required by UK national legislation										
# Indicates "Value greater than zero but not significant or applicable"										
NOTE Coloured areas of signs created by digital or screen printing or using overlay film will need to meet 70 % of the values in the table.										

Table A.1

Manufacturer's Specification for the Minimum Initial Coefficient of Retro-reflection R_A value
(see UK National Annex to EN 12899-1:2007 Class R3B-UK; DIN 67520:2013-10 Class RA 3B;
Önorm V 2050:2006-01-01 Typ 3; TLP VZ Class RA3)

Table NA.1C — Minimum coefficient of retroreflection for high-performance materials (Class R3C-UK) (unit: $\text{cdlx}^{-1}\text{m}^{-2}$)

Geometry of measurement		Colour								
α	β_1 ($\beta_2 = 0$)	White	Yellow	Red	Green	Dark Green	Blue	Brown	Fluorescent Yellow	Fluorescent Orange
0.2°	+5°	580	435	87	58	42	26	17	350	175
	+30°	220	165	33	22	16	10	7	130	66
0.33°	+5°	300	250	75	35	29	17	10	180	90
	+30°	140	128	30	18	11	7	5	90	42
0.5°	+5°	420	315	63	42	21	19	13	250	125
	+30°	150	110	23	15	7.5	7	5	90	45
1.0°	+5°	120	90	18	12	6	5	4	72	36
	+30°	45	34	7	5	2	2	1	27	14
NOTE 1 When material is sampled, processed and tested per manufacturer's Declaration of Performance and EAD 120001-00-0106, Section 2.2.3.										
NOTE 2 The requirements of Class R3C-UK are based on ASTM Type XI.										

Table A.2

Manufacturer's Specification for the Minimum Initial Coefficient of Retro-reflection R_A value
(see UK National Annex to EN 12899-1:2007 Class R3C-UK; Coloured areas of signs created by digital or screen printing will need to meet 70% of the values in the table)

Geometry of measurements		Colour						
α	β_1 ($\beta_2 = 0$)	White	Yellow	Red	Blue	Green	Fluorescent orange	Fluorescent Yellow Green
0.1°	+5°	850	550	170	55	85		
	+20°	600	390	120	40	60		
	+30°	425	275	85	28	40		
	+40°	200	140	40	10	20		
0.2°	+5°	625	400	125	40	60	200	375
	+15°	350	270	90	20	35	175	
	+20°	450	290	90	30	45		
	+30°	325	210	65	20	30	120	200
	+40°	160	112	32	8	16	80	36
0.33°	+5°	425	275	85	28	40	150	270
	+15°	250	200	65	15	25	130	
	+20°	300	195	60	20	30		
	+30°	225	145	45	15	20	90	140
	+40°	110	77	22	5.5	11	60	24
1.0°	+5°	80	65	20	5	10	7.5	70
	+15°	60	45	16	3.5	7	5	
	+30°	50	40	13	2.5	5	2.5	43
	+40°	15	13	4	1	2	2.5	9

Table A.3

Manufacturer's Specification for the Minimum Initial Coefficient of Retro-reflection R_A value
(see Belgium PTV Nr. 662: Class PTV-3A; PTV-3B; PTV-3C)

ETA 17-0409:

Annex 1

3M™ Diamond Grade™ DG³ Prismatic Digital Sheeting 4090DS + 3M™ Piezo Inkjet Ink + 3M™ Protective Overlay Film 1170

Daylight Chromaticity and Luminance Factor, initial and after accelerated artificial weathering

1.1 Daylight Chromaticity and Luminance Factor, initial

Colours		Chromaticity Coordinates				Luminance Factor B
		1	2	3	4	
White Tolerance Sphere	x	0.305	0.335	0.325	0.295	≥ 0.40
	y	0.315	0.345	0.355	0.325	
White Sample 1	x	0.310				0.42
	y	0.327				
White Sample 2	x	0.311				0.42
	y	0.328				
White Sample 3	x	0.311				0.42
	y	0.327				
Yellow Tolerance Sphere	x	0.494	0.470	0.513	0.545	≥ 0.24
	y	0.505	0.480	0.437	0.454	
Yellow Sample 1	x	0.478				0.28
	y	0.477				
Yellow Sample 2	x	0.475				0.25
	y	0.475				
Yellow Sample 3	x	0.477				0.27
	y	0.479				
Red Tolerance Sphere	x	0.735	0.700	0.610	0.660	≥ 0.03
	y	0.265	0.250	0.340	0.340	
Red Sample 1	x	0.634				0.07
	y	0.331				
Red Sample 2	x	0.634				0.07
	y	0.332				
Red Sample 3	x	0.637				0.07
	y	0.332				
Blue Tolerance Sphere	x	0.130	0.160	0.160	0.130	≥ 0.01
	y	0.090	0.090	0.140	0.140	
Blue Sample 1	x	0.141				0.04
	y	0.125				
Blue Sample 2	x	0.145				0.06
	y	0.137				
Blue Sample 3	x	0.142				0.05
	y	0.128				
Green Tolerance Sphere	x	0.110	0.170	0.170	0.110	≥ 0.03
	y	0.415	0.415	0.500	0.500	
Green Sample 1	x	0.160				0.06
	y	0.442				
Green Sample 2	x	0.158				0.05
	y	0.481				
Green Sample 3	x	0.159				0.06
	y	0.449				
Orange Tolerance Sphere	x	0.631	0.560	0.506	0.570	≥ 0.14
	y	0.369	0.360	0.404	0.429	
Orange Sample 1	x	0.550				0.15
	y	0.407				
Orange Sample 2	x	0.546				0.14
	y	0.411				
Orange Sample 3	x	0.536				0.14
	y	0.402				

Colours		Chromaticity Coordinates				Luminance Factor B
		1	2	3	4	
Brown Tolerance Sphere	x	0.455	0.523	0.479	0.558	0.03-0.09
	y	0.397	0.429	0.373	0.394	
Brown Sample 1	x	0.521				0.05
	y	0.405				
Brown Sample 2	x	0.525				0.05
	y	0.399				
Brown Sample 3	x	0.527				0.04
	y	0.397				
Grey Tolerance Sphere	x	0.305	0.335	0.325	0.295	0.11-0.18
	y	0.315	0.345	0.355	0.325	
Grey Sample 1	x	0.318				0.15
	y	0.333				
Grey Sample 2	x	0.318				0.14
	y	0.333				
Grey Sample 3	x	0.317				0.13
	y	0.331				
Dark Green Tolerance Sphere	x	0.313	0.313	0.248	0.127	0.01-0.07
	y	0.682	0.453	0.409	0.557	
Dark Green Sample 1	x	0.227				0.06
	y	0.513				
Dark Green Sample 2	x	0.205				0.06
	y	0.562				
Dark Green Sample 3	x	0.226				0.08
	y	0.560				

1.2 Daylight Chromaticity and Luminance Factor, after accelerated artificial weathering

Colours		Chromaticity Coordinates				Luminance Factor B
		1	2	3	4	
White	x	0.355	0.305	0.285	0.335	≥0.40
Tolerance Sphere	y	0.355	0.305	0.325	0.375	
White Sample 1	x	0.310				0.43
	y	0.327				
White Sample 2	x	0.310				0.45
	y	0.326				
White Sample 3	x	0.312				0.43
	y	0.328				
Yellow	x	0.545	0.487	0.427	0.465	≥0.24
Tolerance Sphere	y	0.454	0.423	0.483	0.534	
Yellow Sample 1	x	0.469				0.30
	y	0.479				
Yellow Sample 2	x	0.472				0.28
	y	0.476				
Yellow Sample 3	x	0.472				0.28
	y	0.482				
Red	x	0.735	0.674	0.569	0.655	≥0.03
Tolerance Sphere	y	0.265	0.236	0.341	0.345	
Red Sample 1	x	0.622				0.08
	y	0.335				
Red Sample 2	x	0.618				0.07
	y	0.334				
Red Sample 3	x	0.624				0.07
	y	0.337				
Blue	x	0.078	0.150	0.210	0.137	≥0.01
Tolerance Sphere	y	0.171	0.220	0.160	0.038	
Blue Sample 1	x	0.143				0.04
	y	0.143				
Blue Sample 2	x	0.147				0.06
	y	0.142				
Blue Sample 3	x	0.144				0.05
	y	0.134				
Green		0.007	0.248	0.177	0.026	≥0.03
Tolerance Sphere		0.703	0.409	0.362	0.399	
Green Sample 1	x	0.177				0.08
	y	0.422				
Green Sample 2	x	0.162				0.05
	y	0.471				
Green Sample 3	x	0.156				0.06
	y	0.436				
Orange	x	0.631	0.560	0.506	0.570	≥0.14
Tolerance Sphere	y	0.369	0.360	0.404	0.429	
Orange Sample 1	x	0.538				0.17
	y	0.411				
Orange Sample 2	x	0.547				0.15
	y	0.411				
Orange Sample 3	x	0.528				0.17
	y	0.408				
Brown	x	0.455	0.523	0.479	0.558	0.03-0.09
Tolerance Sphere	y	0.397	0.429	0.373	0.394	
Brown Sample 1	x	0.512				0.06
	y	0.407				
Brown Sample 2	x	0.518				0.05
	y	0.400				
Brown Sample 3	x	0.523				0.05
	y	0.405				
Grey	x	0.350	0.300	0.285	0.335	0.11-0.18
Tolerance Sphere	y	0.360	0.310	0.325	0.375	
Grey Sample 1	x	0.318				0.15
	y	0.333				
Grey Sample 2	x	0.318				0.13
	y	0.332				
Grey Sample 3	x	0.319				0.14
	y	0.333				