DÉCLARATION DE PERFORMANCES N° SIG 13 E

Code identique du produit: SIG13E

Utilisation prévue: Construction complète de panneaux de signalisation verticaux fixes à plan d'image rétro-réfléchissant, Classe 2 High Intensity.

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 temporaire poteaux de support : flexion	Conforme (TDB5)			NBN EN 12899-1:2007		
Déformation temporaire poteaux de support : torsion	Conforme (TDB3)			NBN EN 12899-1:2007		
Déformation permanente	Conforme			NBN EN 12899-1:2007		
Coefficient partiel de sécurité	PAF 1			NBN EN 12899-1:2007		
Matériau: tuyau en acier S235J2H	Dia 51 2,6 mm	Dia76 2,9 mm	Dia 89 3,2 mm	Dia 114 3,6 mm	Dia 133 4mm	40x40 2mm
Comportement en cas de collision par un véhicule EN 12899-6.3 conforme EN 12767:2019	100-NE-C-S, X, R-SE-MD-1	100-NE-C-S, X, R-SE-MD-1	100-NE-C-S, X, R-SE-MD-1	Classe 0	Classe 0	Classe 0

Caractéristiques visuelles		
Panneaux rétro-réfléchissants		
Coordonnées colorimétriques à la lumière du jour & indice de luminance	Table 1.2 (en annexe)	ETA 18-0290 ETA 17-0491 EAD 120001-01-0106:2016
Coefficient rétro-réfléchissant	Table A.1 et Annex 1 (en annexe)	ETA 18-0290 ETA 17-0491 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 18-0290 ETA 17-0491 EAD 120001-01-0106:2016
Coefficient rétro-réfléchissant après exposition	>80% de Table A.1 et Annex 1 (en annexe)	ETA 18-0290 ETA 17-0491 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 18-290:

Colours		Chromaticity Coordinates				Luminance Factor ß
		1	2	3	4	
White Tolerance Sphere*	x y	0.305 0.315	0.335 0.345	0.325 0.355	0.295 0.325	≥0.27
Yellow Tolerance Sphere*	x y	0.494 0.505	0.470 0.480	0.513 0.437	0.545 0.454	>0.16
Red Tolerance Sphere*	x y	0.735 0.265	0.700 0.250	0.610 0.340	0.660 0.340	≥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	0.130 0.090	0.160 0.090	0.160 0.140	0.130 0.140	≥0.01
Green Tolerance Sphere*	x y	0.110 0.415	0.170 0.415	0.170 0.500	0.110 0.500	≥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	0.305 0.315	0.335 0.345	0.325 0.355	0.295 0.325	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 CR2						

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

Colours		Chromaticity Coordinates				Luminance Factor ß
		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	≥0.27
Yellow 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 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
* 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'

Geometry of measurement		Colour								
α	β_1 ($\beta_2 = 0$)	White	Yellow	Red	Green	Dark Green	Blue	Brown	Orange	Grey
12'	+5°	250	170	45	45	20	20	12	100	125
	+30°	150	100	25	25	15	11	8.5	60	75
	+40°	110	70	15	12	6	8	5.0	29	55
20'	+5°	180	120	25	21	14	14	8	65	90
	+30°	100	70	14	12	11	8	5	40	50
	+40°	95	60	13	11	5	7	3	20	47
2°	+5°	5	3	1	0.5	0.5	0.2	0.2	1.5	2.5
	+30°	2.5	1.5	0.4	0.3	0.3	#	#	1	1.2
	+40°	1.5	1.0	0.3	0.2	0.2	#	#	#	0.7

# 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
(Values are identical to EN 12899-1:2007 Class RA2)

ETA 17-0491:

Colours		Chromaticity Coordinates 1	2	3	4	Luminance Factor ß
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

Colours		Chromaticity Coordinates 1	2	3	4	Luminance Factor ß
White	x	0.355	0.305	0.285	0.335	*≥ 0.40*
*Tolerance Sphere**	y	0.355	0.305	0.325	0.375	
Yellow	x	0.545	0.487	0.427	0.465	*≥ 0.24*
*Tolerance Sphere**	y	0.454	0.423	0.483	0.534	
Red	x	0.735	0.674	0.569	0.655	*≥ 0.03*
*Tolerance Sphere**	y	0.265	0.236	0.341	0.345	
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	0.078	0.150	0.210	0.137	*≥ 0.01*
*Tolerance Sphere**	y	0.171	0.220	0.160	0.038	
Green	x	0.007	0.248	0.177	0.026	*≥ 0.03*
Tolerance Sphere*	y	0.703	0.409	0.362	0.399	
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	0.350	0.300	0.285	0.335	*0.11-0.18*
Tolerance Sphere*	y	0.360	0.310	0.325	0.375	
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 CR1*						

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

Annex 1: 3M™ High Intensity Prismatic Digital Sheeting 3930DS + 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 ß
		1	2	3	4	
White Tolerance Sphere	x y	***0.305*** ***0.315***	***0.335*** ***0.345***	***0.325*** ***0.355***	***0.295*** ***0.325***	***≥0.40***
White Sample 1	x y	0.315 0.332				0.44
White Sample 2	x y	0.316 0.333				0.43
White Sample 3	x y	0.315 0.333				0.44
Yellow Tolerance Sphere	x y	***0.494*** ***0.505***	***0.470*** ***0.480***	***0.513*** ***0.437***	***0.545*** ***0.454***	***≥0.24***
Yellow Sample 1	x y	0.481 0.474				0.28
Yellow Sample 2	x y	0,476 0,474				0,28
Yellow Sample 3	x y	0,481 0,486				0,27
Red Tolerance Sphere	x y	***0.735*** ***0.265***	***0.700*** ***0.250***	***0.610*** ***0.340***	***0.660*** ***0.340***	***≥0.03***
Red Sample 1	x y	0.630 0.331				0.07
Red Sample 2	x y	0.625 0.332				0.07
Red Sample 3	x y	0.637 0.331				0.07
Blue Tolerance Sphere	x y	***0.130*** ***0.090***	***0.160*** ***0.090***	***0.160*** ***0.140***	***0.130*** ***0.140***	***≥0.01***
Blue Sample 1	x y	0.141 0.130				0.04
Blue Sample 2	x y	0.146 0.139				0.06
Blue Sample 3	x y	0.141 0.129				0.05
Green Tolerance Sphere	x y	***0.110*** ***0.415***	***0.170*** ***0.415***	***0.170*** ***0.500***	***0.110*** ***0.500***	***≥0.03***
Green Sample 1	x y	0.169 0.438				0.06
Green Sample 2	x y	0.166 0.476				0.05
Green Sample 3	x y	0.160 0.448				0.06
Orange Tolerance Sphere	x y	***0.631*** ***0.369***	***0.560*** ***0.360***	***0.506*** ***0.404***	***0.570*** ***0.429***	***≥0.14***
Orange Sample 1	x y	0.546 0.404				0.16
Orange Sample 2	x y	0.544 0.407				0.15
Orange Sample 3	x y	0.527 0.397				0.16

Colours		Chromaticity Coordinates				Luminance Factor ß
		1	2	3	4	
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***
Brown Sample 1	x y	0.524 0.402				0.05
Brown Sample 2	x y	0.515 0.396				0,05
Brown Sample 3	x y	0,523 0.394				0,04
Grey Tolerance Sphere	x y	***0.305*** ***0.315***	***0.335*** ***0.345***	***0.325*** ***0.355***	***0.295*** ***0.325***	***0.11-0.18***
Grey Sample 1	x y	0.321 0.336				0.16
Grey Sample 2	x y	0.321 0.336				0.15
Grey Sample 3	x y	0.323 0.338				0.14
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***
Dark Green Sample 1	x y	0.233 0.501				0.06
Dark Green Sample 2	x y	0.212 0.561				0.06
Dark Green Sample 3	x y	0.250 0.535				0.05

1.2 Daylight Chromaticity and Luminance Factor, after accelerated artificial weathering

Colours		Chromaticity Coordinates 1	2	3	4	Luminance Factor ß
White Tolerance Sphere	x y	**0.355** **0.355**	**0.305** **0.305**	**0.285** **0.325**	**0.335** **0.375**	***≥0.40***
White Sample 1	x y	0.316 0.333				*0.45*
White Sample 2	x y	0.317 0.335				*0.45*
White Sample 3	x y	0.316 0.333				*0.45*
Yellow Tolerance Sphere	x y	**0.545** **0.454**	**0.487** **0.423**	**0.427** **0.483**	**0.465** **0.534**	***≥0.24***
Yellow Sample 1	x y	0.476 0.474				*0.29*
Yellow Sample 2	x y	0.467 0.474				*0.28*
Yellow Sample 3	x y	0.474 0.479				*0.28*
Red Tolerance Sphere	x y	**0.735** **0.265**	**0.674** **0.236**	**0.569** **0.341**	**0.655** **0.345**	***≥0.03***
Red Sample 1	x y	0.615 0.332				*0.07*
Red Sample 2	x y	0.601 0.333				*0.07*
Red Sample 3	x y	0.619 0.334				*0.06*
Blue Tolerance Sphere	x y	**0.078** **0.171**	**0.150** **0.220**	**0.210** **0.160**	**0.137** **0.038**	***≥0.01***
Blue Sample 1	x y	0.145 0.152				*0.04*
Blue Sample 2	x y	0.149 0.151				*0.06*
Blue Sample 3	x y	0.142 0.137				*0.05*
Green Tolerance Sphere		**0.007** **0.703**	**0.248** **0.409**	**0.177** **0.362**	**0.026** **0.399**	***≥0.03***
Green Sample 1	x y	0.174 0.423				*0.06*
Green Sample 2	x y	0.174 0.459				*0.06*
Green Sample 3	x y	0.170 0.438				*0.07*
Orange Tolerance Sphere	x y	**0.631** **0.369**	**0.560** **0.360**	**0.506** **0.404**	**0.570** **0.429**	***≥0.14***
Orange Sample 1	x y	0.535 0.406				*0.16*
Orange Sample 2	x y	0.529 0.411				*0.16*
Orange Sample 3	x y	0.525 0.403				*0.16*
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***
Brown Sample 1	x y	0.509 0.400				*0.06*
Brown Sample 2	x y	0.494 0.395				*0.06*
Brown Sample 3	x y	0.506 0.397				*0.05*
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***
Grey Sample 1	x y	0.321 0.337				*0.18*
Grey Sample 2	x y	0.321 0.337				*0.16*
Grey Sample 3	x y	0.323 0.338				*0.15*

Colours		Chromaticity Coordinates				Luminance Factor ß
		1	2	3	4	
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*
Dark Green Sample 1	x y	0.243 0.484				0.06
Dark Green Sample 2	x y	0.215 0.544				0.06
Dark Green Sample 3	x y	0.250 0.527				0.06