



TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p.
Technical and Test Institute for Construction Prague, S0E

Akreditovaná zkušební laboratoř, Autorizovaná osoba, Notifikovaná osoba, Oznamovaný subjekt, Subjekt pro technické posuzování, Certifikační orgán, Inspekční orgán • Accredited Testing Laboratory, Authorized Body, Notified Body, Technical Assessment Body, Certification Body, Inspection Body • Prosecká 811/76a, 190 00 Praha 9 - Prosek, Czech Republic

Notified Body 1020

CERTIFICATE OF CONSTANCY OF PERFORMANCE

No. 1020 – CPR – 090-044739

In compliance with Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction product:

**Microprismatic retro-reflective sheetings
DM7600 High Intensity Prismatic (HIP) Grade Series – originally
dyed**

White, Yellow, Red, Green, Blue, Fluorescent Yellow-Green

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in the

ETA 17/1031, issued on 14/06/2018

and

EAD 120001-01-0106

under system 1 for the performance set out in the ETA are applied and that the factory production control conducted by the manufacturer is assessed to ensure the

constancy of performance of the construction product.

This certificate was first issued on 1 June 2019 and will remain valid as long as neither the ETA, the EAD, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

The stamp of the Notified Body 1020

Prague, 3 June, 2019



Martin Pešek

Deputy manager of the Notified Body



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Notified Body 1020

Branch 0900 – Technical Engineering Services

REPORT

**on the outcome of the assessment and verification of constancy
of performance of the product**

according to the Regulation (EU) 305/2011 of the European Parliament and of the Council of 9 March 2011
(the Construction Products Regulation or CPR), Art. 1.2 of the Annex V

No. 090-044738

Trade name:

**Microprismatic retro-reflective sheetings
DM7600 High Intensity Prismatic (HIP) Grade Series – originally
dyed**

White, Yellow, Red, Green, Blue, Fluorescent Yellow-Green

Stamp of the Notified Body 1020

Prague, 3 June 2019




Roman Ondruška
Head Assessor

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1. General

1.1 Information about the manufacturer

- Manufacturer: Daoming Optics & Chemical Co., Ltd.
No.581 Dongwu Road, Yongkang Economic Development Zone,
Yongkang City, 321399 Zhejiang, P.R. China
- Manufacturing plant: Daoming Optics & Chemical Co., Ltd.
No.581 Dongwu Road, Yongkang Economic Development Zone,
Yongkang City, 321399 Zhejiang, P.R. China

1.2 Information about the product and its intended use

The construction product is used to manufacture sign faces for traffic signs according to EN 12899-1. The intended use includes for example:

- retro-reflective signs,
- road delineators with retro-reflective devices,
- variable message signs.

Working life of the microprismatic retro-reflective sheeting is 10 years but the real working life may be, in normal use conditions, considerably longer without major degradation affecting the basic requirements for works.

DM7600 High Intensity Prismatic (HIP) Grade Series are the microprismatic retro-reflective sheetings consist of microprismatic retro-reflective elements formed in a transparent synthetic resin, sealed and backed with a pressure sensitive adhesive to form a durable bond to the sign substrates. The sheetings have a smooth surface and regular structure.

The sheeting is provided with a permanent solvent polyacrylate adhesive, which can connect the sheeting with a substrate.

The products supplied as the complete set of microprismatic retro-reflective sheetings are shown in the following list:

Microprismatic retro-reflective sheets originally dyed:

White

Yellow

Red

Green

Blue

Fluorescent Yellow-Green

European Technical Assessment **ETA 17/1031** was issued for **DM7600 High Intensity Prismatic (HIP) Grade Series – originally dyed: White, Yellow, Red, Green, Blue, Fluorescent Yellow-Green** by Deutsches Institute für Bautechnik (DIBt) on 14.June 2018.



1.3 List of documentations provided by the manufacturer to the assessment and verification of constancy of performance (AVCP)

- application for performance of activity of notified body – AVCP system 1
- Description of product and specification of its use in construction
- Certificate EN ISO 9001:2015
- Flow chart for production
- Inspection and test plan
- Inspection report
- ETA 17/1031 issued on 14.06.2018

1.4 List of the other documentation used during the product AVCP

- None

1.5 Technical specification relating to the AVCP

- EAD 120001-01-0106 Microprismatic retro-reflective sheetings

1.6 Information about previous AVCP

The producer did not demonstrate any previous product certification.

2 Product Assessment**2.1 Technical requirements**

The product was assessed under EAD 120001-01-0106 Microprismatic retro-reflective sheetings, with respect to the following monitored properties:

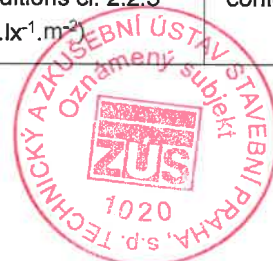
- Visibility Characteristics
- Durability

2.2 List of the Test Reports:

- Test Report No. 090-044737 issued on 31.05.2018 by TZUS Praha s.p., branch TIS, Testing laboratory no. 1018.8 accredited by CAI according ČSN EN ISO/IEC 17025:2005
- Interims Test Report No. V3-001/2017 issued on 07.02.2018 by BAST, Testing laboratory accredited according ČSN EN ISO/IEC 17025

2.3 Evaluation of the results of the product tests and assessment

Monitored property	Test Protocol	Test procedure	Test result	Required / declared level	Evaluation
1	2	3	4	5	6
Visibility Characteristics					
Daylight Chromaticity	2.2	EAD 120001-01-0106 cl. 2.2.1	Test Protocol V3-001/2017 090-044737	R: conditions cl. 2.2.1 Chromaticity coordinates (x,y)	conforms
Luminance factor	2.2	EAD 120001-01-0106 cl. 2.2.1	Test Protocol V3-001/2017 090-044737	R: conditions cl. 2.2.1 Luminance factor β (-)	conforms
Night-time colour	2.2	EAD 120001-01-0106 cl. 2.2.2		NPD	
Coefficient of retroreflection	2.2	EAD 120001-01-0106 cl. 2.2.3	Test Protocol V3-001/2017 090-044737	R: conditions cl. 2.2.3 R_A (cd.lx ⁻¹ .m ⁻²)	conforms



Durability					
Impact resistance	2.2	EAD 120001-01-0106 cl. 2.2.4	Test Protocol V3-001/2017	R: conditions cl. 2.2.4 Fulfil EN 12899-1:2007: no cracking, no delamination from substrate material	conforms
Temperature resistance	2.2	EAD 120001-01-0106 cl. 2.2.5		NPD	
Visibility after accelerated artificial weathering	2.2	EAD 120001-01-0106 cl. 2.2.6, 2.2.1, 2.2.3	Test Protocol V3-001/2017	R: conditions cl. 2.2.6, 2.2.1, 2.2.3 Chromaticity coordinates (x,y) Luminance factor β (-) R_A (cd.lx ⁻¹ .m ⁻²)	conforms
Visibility after natural weathering	2.2	EAD 120001-01-0106 cl. 2.2.6, 2.2.1, 2.2.3		NPD	
Adhesion	2.2	EAD 120001-01-0106 cl. 2.2.7		NPD	

Evaluation conclusion: the product confirms to and complies with the declared purpose.

3 Factory Production Control Assessment

The product assessment was performed according to EAD 120001-01-0106 Microprismatic retro-reflective sheetings, in the manufacturing Daoming Optics & Chemical Co., Ltd, No.581 Dongwu Road, Yongkang Economic Development Zone, Yongkang City, 321399 Zhejiang, P.R. China, on 1 November 2018.

3.1 Requirement of the technical specification regarding Factory Production Control:

Requirements are laid down in 120001-01-0106 Microprismatic retro-reflective sheetings.

3.2 Evaluation of the Factory Production Control assessment results:

- The technical documentation of the manufacturer Daoming Optics & Chemical Co. Ltd. contains a description of the production management system in the internal document Technological Guideline for Microprismatic retro-reflective sheetings.
- The production management system complies with the technical documentation and ensures that the marketed products conform to the technical specifications, and is assessed as conforming

4 Conclusion

- The sample of product fulfils the requirements of the technical specification.
- The FPC is in accordance with the harmonised technical specification and ensures that the declared performances are achieved.
- Findings and conclusions mentioned in this Report are valid providing the conditions under which FPC assessment was carried out remain unchanged (e.g. technical regulations, technical specifications, production technology, incoming raw and manufacturing equipment).
- In compliance with provision of the CPR Art. 1.2, Annex V Surveillance Reports containing FPC assessment and evaluation have to be complementary to the technical documentation.

5 Annexes

The documents are not part of this Protocol and are kept by the author.

Prepared by: Roman Ondruška

