

Transportation Safety Division

# 3M™ Stamark™ A380iES

## High Performance Pavement Marking Tape

Product Bulletin Series A380iES

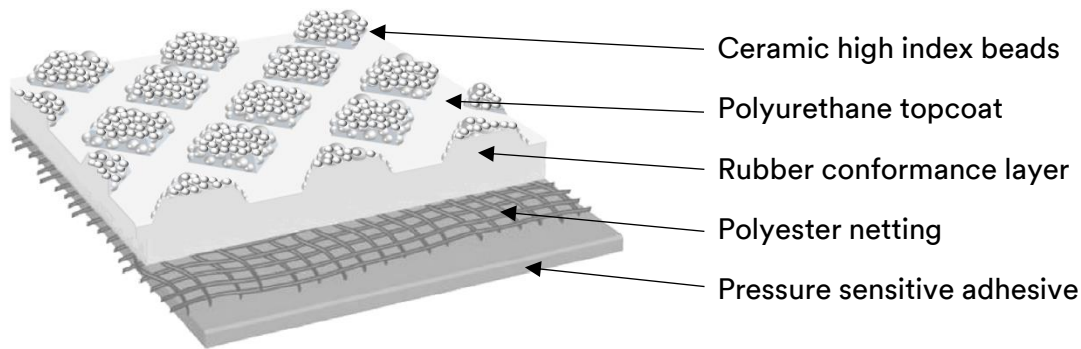
March 2023

### 1 Description

3M™ Stamark™ High Performance Tape Series A380iES high performance tape is a durable pavement marking tape intended to be used as an inlay marking on hot asphalt surfaces or as an overlay marking on concrete and drain and open-pore-asphalt (OPA). Those asphalts should have a low amount of crushed stones on the surface. The overlay concept is not to be used for melted asphalt and liquid repair asphalt for permanent tape. For rough, cold asphalt surfaces the application method BitumenPlus should be used, which yields in improved adhesion of the tape compared to the overlay application method.

**Series A380iES:** used for lane lines, edge lines, channelizing lines and gore markings, symbols and letters

## 2 Product construction



## 3 Product features

- High retroreflective performance
- Durable, conformable, and retroreflective
- Embedded net provides increased tear performance
- Precoated with an extended season pressure sensitive adhesive (PSA) on bottom surface
- Can be applied early and late season when 3M Stamark surface preparation adhesive is used
- Product design that provides long-term reflectivity
- Abrasion-resistant microcrystalline ceramic beads bonded in a highly durable polyurethane topcoat
- Manufactured with no (intentional) use of heavy metals, lead chromate pigments or other similar, lead-containing chemicals
- Improved patterned surface that presents a near vertical surface to traffic to maximize retro reflectance
- Nominal thickness of 2.3 mm

## 4 Product performance

3M™ Stamark™ tape series A380iES fulfills the following classes of EN 1436 in new, initial testing conditions:

$\beta$	RL	S
B4 $\geq 0,6$	R5 $\geq 300$ mcd	>S1 $\geq 45$ SRT

Qd class:	Qd values (luminance coefficient under diffuse illumination)
$\beta$ class:	$\beta$ values (coefficient of luminance)
RL class:	Coefficient of retroreflected luminance following 30 m geometry
RW class:	Retroreflection in wet conditions
S class:	Skid Resistance value

Note: 3M™ Stamark™ A380iES will be delivered with hydrophobic release coating that may influence the initial performance characteristics. Especially the measurements for RW cannot be performed on newly applied marking, because the water forms puddles on the surface. The coating will be removed within a few weeks through normal traffic wear. See respective note in clause 5.2.3 of prEN 1790:2019.

## 5 Application

All applications of 3M™ Stamark™ A380iES tape should be installed using the instructions in this Product Bulletin and the appropriate Information Folders. Three application methods are applicable for the 3M™ Stamark™ A380iES: Inlay on the hot asphalt surface, Overlay on concrete or drain and open-pore-asphalt (OPA) surfaces and BitumenPlus application on all, especially rough, asphalt surfaces.

Climatic and surface conditions for Overlay applications:

- Air and Surface Temperatures: +10°C and rising
- Relative Air Humidity: < 80 %
- Clean and dry surface, no rain 48 hours prior to the application
- Always use 3M™ Stamark™ Surface Preparation Adhesive P50 for Overlay applications prior to the tape application
- Do not apply tape on longitudinal road surface joints
- The existing MTA-2 application equipment has to be upgraded using plasma coated transportation roll kit 7000033008 in order to prevent adhesive sticking

For further details on Overlay application, please read to Information Folder IF OV. For Inlay application, please read IF Asphalt Plus. For BitumenPlus application, please read IF BitumenPlus.

## 6 Product Performance References

3M™ Stamark™ High Performance Tape A380iES has been certified by a number notified bodies across European Union and performs best at long periods of time.

Research Institute of Roads and Bridges (Instytut Badawczy Dróg i Mostów):

Reference: IBDiM-KOT-2020/0509

Bundesanstalt für Straßenwesen (BaSt):

Reference: 2014 1DF 02.14

Association pour la Certification et la Qualification des Equipements de la Route (ASCQUER):

Reference: 2RH1627S1

### General Performance Consideration

The durability of A380iES tape will depend on traffic conditions, snow removal practices, application techniques used, as well as pavement and atmospheric conditions at the time of application. Damage may be caused by heavy trucks, excessive encroachment (crossover), narrow lane width, unpaved shoulders, snow removal and ice control techniques, such as sanding. It is recommended that the customer thoroughly evaluates A380 AW tape under the conditions in the specified location before making large-scale applications. While experience has shown that, properly applied, these materials are highly effective traffic control devices, 3M makes no generalized durability claims.

## 7 Storage

Store 3M™ Stamark™ A380iES in a cool dry area - indoors. Use siliconized paper as delivered in the box in order to separate the rolls whilst stacking without carton. Use within 12 months after receipt.

## 8 Health and Safety Information

Read all health hazard, precautionary and first aid statements found in the Material Safety Data Sheet (MSDS), and/or product label of chemicals prior to handling or use.

## 9 Disclaimer

The 3M warranty is made in lieu of all other warranties or conditions, express or implied, including but not limited to any implied warranty or condition of merchantability, or fitness for a particular purpose, or any implied warranty arising out of a course of dealing or of performance, custom or usage of trade.

## 10 Limitation of Liability

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## 11 Other Product Information

Always confirm that you have the most current version of the applicable product bulletin, information folder or other product information from 3M's Website at <http://www.mmm.com/tss>.

## 12 Guarantee /Liability

3M assumes no responsibility for any injury, loss or damage arising out of the use of a product that is not of our manufacture. Where reference is made in literature to a commercially available product, made by another manufacturer, it shall be the user's responsibility to ascertain the precautionary measures for its use outlined by the manufacturer. Prerequisite for the guarantee is that the tape was processed according the instruction of this and other related technical information folders

## 13 Literature References

For additional information on 3M™ Stamark™ Tapes, Application Instructions or 3M™ Application Equipment, refer to the following publications:

IF OV	Information Folder Overlay / P50 Application
IF AP	Information Folder Inlay / AsphaltPlus Application
IF BPlus	Information Folder BitumenPlus Application
IF PS-98	Information Folder Adhesive Spray Applicator PS-98
IF P50	Information Folder Surface Preparation Adhesive 3M™ Stamark™ P50
IF MTA2	Information Folder Manual Tape Applicator MTA-2
IF RTC-3	Information Folder Roller Tamper Cart RTC-3

## Important Notice to Purchaser

All statements, technical information and recommendations herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed. Before using, user shall determine the suitability of the product for its intended use, and user assumes all risk and liability whatsoever in connection therewith. All questions of warranty and liability relating to this product are governed by the terms of the sale subject where applicable to the prevailing law. No statement or recommendation not contained herein shall have any force or effect unless in an agreement signed by officers of seller and manufacturer.

Reliant for these product-information:

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