



# 3M™ High Intensity Prismatic (HIP) Reflective Sheeting

## Product Description

3M High Intensity Prismatic (HIP) Reflective Sheeting is a non-metalised microprismatic sheeting. Temporary White and Yellow HIP with a 3 year performance guarantee is also available.

## Application/Suitability

HIP is designed for use on permanent, static, road traffic signs and delineators that are exposed vertically in service. The sheeting is supplied with a pressure sensitive adhesive which is protected by a plastic liner.

HIP meets the colour and performance requirements of BS EN 12899-1:2007 and BS 8408. It has been evaluated by an independent test house and been granted a European Technical Approval (ETA 08/0101) and CE mark in which it met all the requirements of a class R2 reflective sheeting.

## Effective Performance Life

High Intensity Prismatic reflective sheeting, when applied and maintained following 3M recommendations will provide a 12 year effective performance life when mounted vertically and a brightness retention as shown in the table below:

Minimum coefficient of retroreflection after 12 years (cd/m<sup>2</sup>/lx)

Entrance angle	Observation angle	White	Yellow	Red	Blue
-5°	0.2°	250	180	45	20

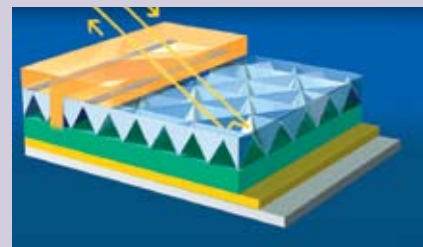
## Benefits

When compared directly with reflective sheeting that uses enclosed or encapsulated glass beads, High Intensity Prismatic reflective sheeting has the following advantages:

- Improved legibility, due to better colour contrast
- Enhanced brightness by day and by night
- Better visibility in all weather conditions
- Greater return on investment, due to 12 year durability
- Environmental benefits (further information can be found under Environmental/Energy Advantage section)

High Intensity Prismatic reflective sheeting also:

- Meets or exceeds many of the minimum recommended luminance indices in BS 8408:2005
- Meets the requirements of Class R2 sheeting
- Is CE marked



## Product Construction/Specification

HIP is a multilayer, non-metalised microprismatic sheeting, supplied with a pressure sensitive adhesive which is protected by a plastic liner. HIP meets the performance requirements for encapsulated lens sheetings (Class RA2 as required by BS EN 12899-1: 2007), has a European Technical Approval (08/0101) as a class R2 sheeting and is CE Marked.

## Application Surface

HIP reflective sheeting is recommended for use on properly prepared flat Aluminium and British Steel HP200 substrates. For recommended substrate preparation please request Instruction Bulletin 1.7. Users are urged to carefully evaluate all other substrates for adhesion and sheeting durability. Sheeting failures caused by the substrate or improper surface preparation, are not the responsibility of 3M.



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Following BS EN 12899-1:2007 HIP can be specified using performance indices as described in BS8408 or by specifying Class R2 as certified in European Technical Approval (08/0101)

Entrance Angle	Observation Angle	Minimum Coefficient of retroreflection (cd/m <sup>2</sup> /lx)				
		White	Yellow	Red	Blue	Interstate Green
-5°	12'	360	270	65	30	50
	20'	180	122	34	14	32
	1°	20	12	3	1	2
15°	12'	220	145	42	15	40
	20'	160	110	32	10	30
	1°	16	8	2	1	2
40°	12'	120	80	16	9	12
	20'	95	65	13	7	11
	1°	5	3	1	0.5	0.8

## Colours

White, Yellow, Red, Blue, Interstate Green.

## Availability

For full product information please refer to the website or Customer Service Centre.

## Environmental/Energy Advantage

HIP is designed to minimise environmental impacts from manufacturing to disposal.

The manufacturing process for 3M High Intensity Prismatic (HIP) Sheeting has the following advantages over making glass beaded Class RA2 sheeting;

- reduces VOC (volatile organic compound) air emissions by 97%,
- reduces energy consumption by 77%
- reduces solid waste by 46%.

The 12 year warranted performance life of HIP reflective sheeting also means more favourable life cycle costs.

## Product Information

For more detailed technical information please request the relevant product bulletin or download it from the website.

For further information or samples, please contact:

3M Customer Service Centre on: 0161 237 6394

Or if within Republic of Ireland on: 01 280 3555



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