

**3M** Science.  
Applied to Life.™

# Visible, Durable & High Performance Road Studs

3M™ Marker Series 290 Reflecting Road Stud  
with Embedded 301 Inset Casing



**RoadCraft**  
Safety Products Ltd

**Fleming  
& Company**

# Leading the way to safer roads

For more than 70 years 3M has developed and used technologies to provide solutions that help to make our roads safer.

The 3M™ Marker Series 290 Reflecting Road Stud is a permanent surface mounted road stud approved by the Department for Transport for use on all road surfaces. The combination of an advanced optical design, hard ceramer coatings and computer-aided construction design has resulted in a highly visible, long-lasting system that offers superior quality and performance.

## 3M Marker Series 290 Reflecting Road Stud and the Embedded 301 Inset Casing

The 290 Reflecting Road Stud may be applied using a 301 metal housing base, designed and distributed by Roadcraft Safety Products Ltd and Fleming & Company.

The combination of the 3M Marker Series 290 Reflecting Road Stud and the 301 inset provides a highly durable system that performs on even the most heavily trafficked roads.

Installed easily using traditional vertical milling equipment the 301 inset is supplied with the 290 Reflecting Road Stud pre-fitted with its reflectors protected by cast iron guide rails.

### Snow Ploughing

A snow plough properly set up and fitted with a rubber blade should ride over the 290 Reflecting Road Stud.

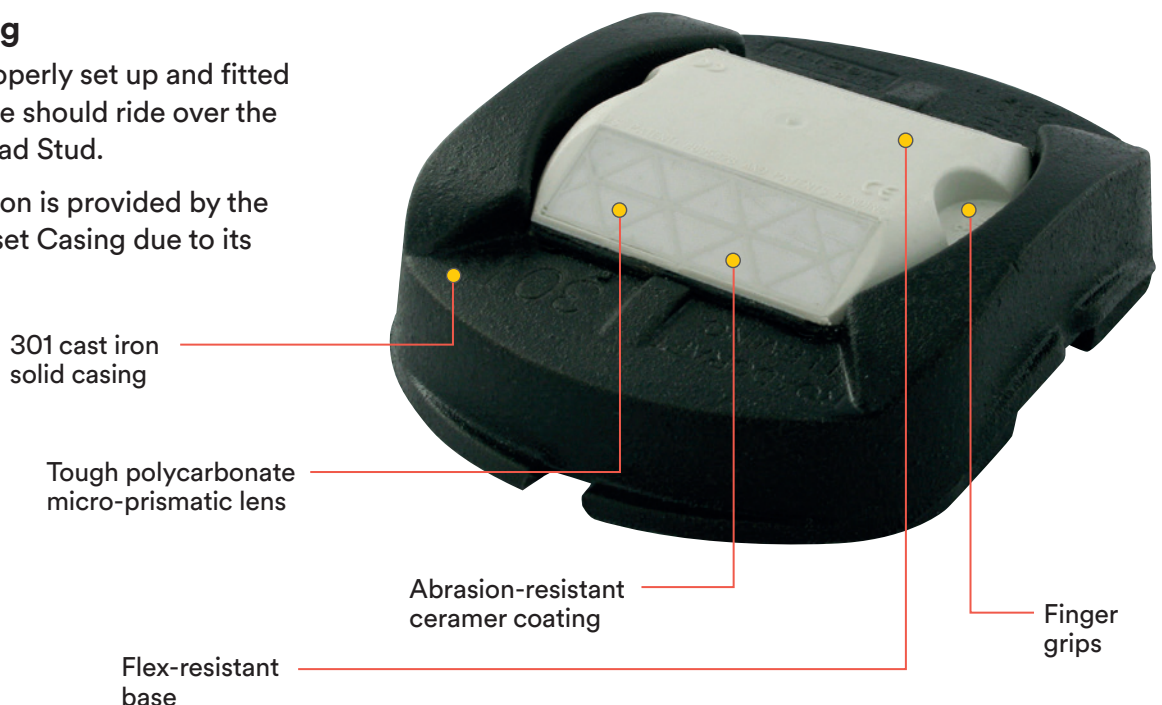
Increased protection is provided by the Embedded 301 Inset Casing due to its contoured design.

## All Weather Visibility with Maximum Durability

The 3M Marker Series 290 Reflecting Road Stud compliments road markings and helps to improve lane line guidance particularly on bends and exit and entrance points.

The reflector lens technology used, offers high visibility in wet and dry and day and night conditions providing all-weather performance.

Available in white, red, green and amber the 290 Reflecting Road Stud's high performing lens yields bright retro-reflected light when illuminated by car headlights, exceeding the requirements of BS EN 1463 Part 1.





## Tough construction providing long-lasting performance

The computer-aided body design combined with innovative materials give the 3M Marker Series 290 Reflecting Road Stud its strength. Manufactured from a high impact resistant polycarbonate resin, the inner-ribbed contour of the stud is shaped to dissipate tyre impact, increase strength and reduce damage. The polycarbonate reflective lens is coated with a superior protective material that combines ceramic and polymeric elements, adding more resistance to abrasion and cracking. The result is a road stud that demonstrates high-impact strength and holds up longer on today's heavily trafficked road network.

## Easy application

Finger grips are moulded into the body design to aid the application process. The 290 Reflecting Road Stud is lightweight and may be applied with hot melt bitumen adhesive.

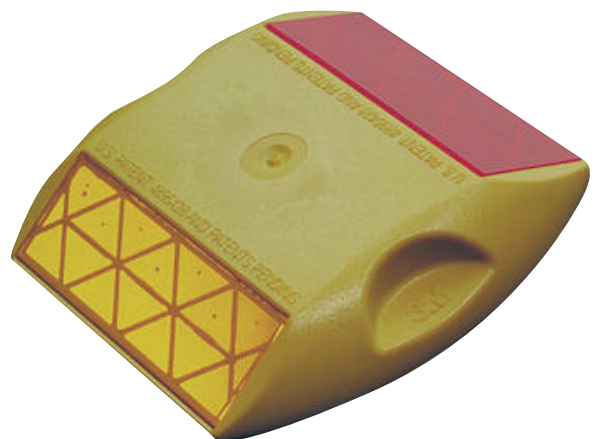
# Superior design provides reliable visibility...

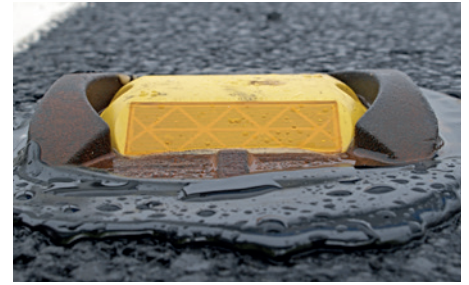
## Specifications

3M Marker Series 290 Reflecting Road Studs are classified as Type P3A studs, (i.e. permanent, plastic reflector with abrasion resistant layer, non-depressible) and Class PRP1 Type 2 retroreflectors according to BS EN 1463 part 1. 3M 290 Reflecting Road Studs achieved the highest possible classifications in road test performance as per BS EN 1463 part 2; Class S1 (Road Presence) and Class R1 (Night-time visibility).

Combined with the Embedded 301 Inset Casing this durable solution provides an embedded, non-depressible road stud rated P3A PRP1 in accordance with BS EN 1463-1:2009 which meets the requirements of direction 7 of the Traffic Signs Regulations and General Directions: 2016.

**3M offers full technical support for its range of road marking products.**





Increased **brightness**, excellent **wet reflectivity** and high retained **retroreflectivity** provide long-term **night time visibility**.

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