

fabrikat

innovation through development & design

Passively Safe Products.

Introduction;-

Fabrikat have been designers, manufacturers and suppliers of Street lighting columns, traffic management and telecommunication structures, pedestrian guardrail, parapet, fencing and street furniture products for over twenty years. During this time we have built a wealth of management experience and expertise.

EURO || POLES

Over recent times we have partnered with EuroPoles for the supply of passively safe products who have over 30 years experience in this market.



Lighting columns in urban areas and beside motorways are often involved in dangerous accidents.

The cost of damage to property along with the social costs caused by serious injuries to the people involved can spiral into hundreds of thousands of pounds. Not considering the incalculable cost to human life.



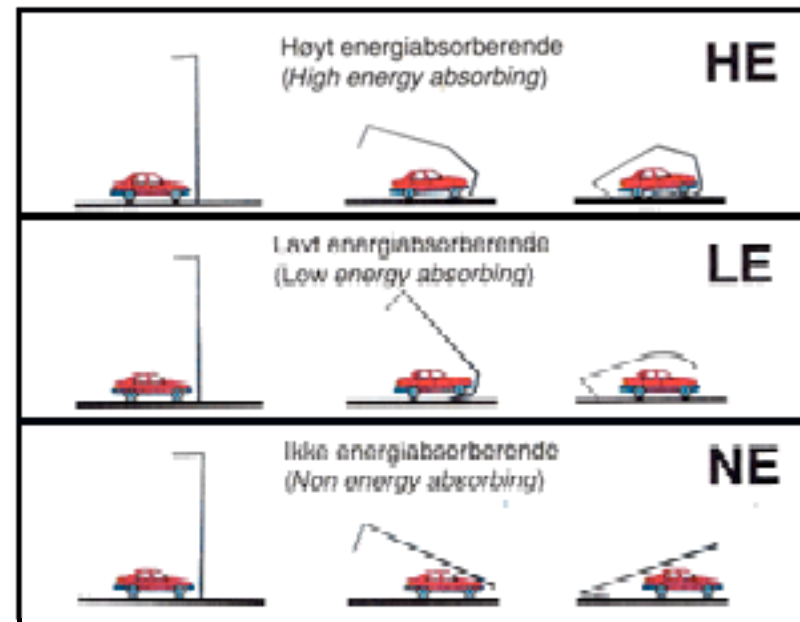
All lighting columns and sign posts supplied by Fabrikat are designed primarily to meet with the requirements of EN40, BD94/07 and EN12899, and are tested and comply with the requirements of BSEN12767.

The European standard considers three categories of passive safety support structures:

- High energy absorbing (HE)
- Low energy absorbing (LE)
- Non-energy absorbing (NE)

Energy absorbing support structures slow the vehicle considerably and thus the risk of secondary accidents with structures, trees, pedestrians and other road users can be reduced.

Non-energy absorbing support structures permit the vehicle to continue after the impact with limited reduction in speed. Non-energy absorbing support structures may provide a lower primary injury risk than energy absorbing support structures.



Certification EN 12767 – 100 NE 3

Certification of our product to achieve a performance classification of 100 NE 3 was gained in 2006.

This pole reduces the speed of a vehicle on impact, due to its design the pole will breakaway and will move over the vehicle. The result of 100 NE 3 is a combination of low primary injury risk and an excellent passenger safety.



Certification EN 12767 – 100 NE 3



Picture 7. Lower part of the slip base from the vehicle approach path.



Certification EN 12767 – 100 LE 3

Again in 2006 certification to EN12767 was gained for LE classification. Cars were tested with a crash speed of 35km/h and 100km/h



35km/h Crash-Test



Broken Pole after impact – the car was stopped by the pole

Certification EN 12767 – 100 LE 3

The performance level of 100 LE 3 is a very good combination of energy absorption and passenger safety. Additionally the FRP poles produce no sparks and are not conductive.



100km/h Crash-Test



Broken Pole after impact – the speed of the car was reduced to approx. 60km/h

The Advantages of FRP.

- low weight and easy installation
- perfectly smooth and homogeneous surface
- available in any colour
- UV stable non-fading
- flame resistant
- extremely resistant to environmental influences (water, chemicals, salt).
- maintenance-free
- excellent insulation capacity



Aviation Authority Approved.

The poles of Europoles have been used for airport approach lighting for many years. During a collision the poles are tilted down without sparking and cause very little damage to the aeroplane.

The poles meet all of the requirements to obtain the frangibility-approval of the international civil aviation organisation ICAO Chapter 14.

The poles are tested and analysed by the leading institute for fibreglass and aviation security NLR (the Netherlands). They have certified the frangibility of the poles.

More than 50 airports are equipped with frangible poles manufactured by Europoles.



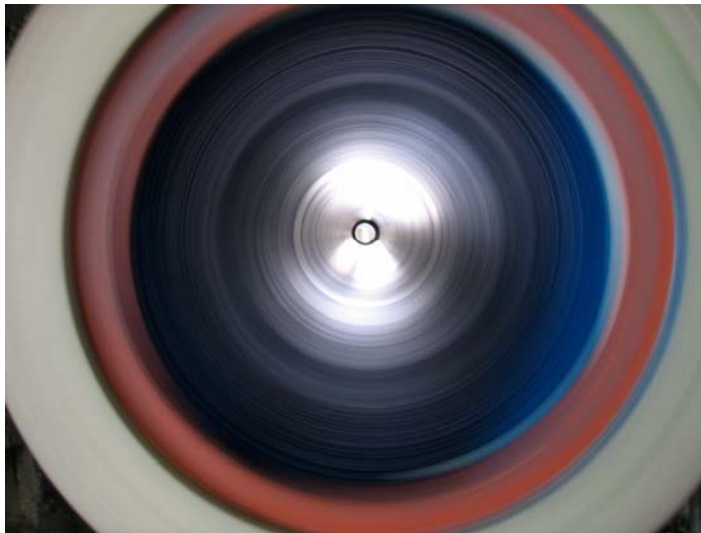
The Production Process of FRP.

The fibreglass mats are cut to length and firmly wrapped around a metal mandrel. Next the high-tensile fibreglass reinforcement is placed into the chrome-plated steel form.



The Production Process of FRP.

The next step involves the centrifuging process. The powerful centrifugal forces in this process impregnate the reinforcement material (fibreglass mats) with the matrix material (pre-coloured polyester resin), and compress it. The result is a smooth pole surface which is of extremely high strength.



The Production Process of FRP.

After hardening is complete, the poles are removed from the centrifugal forms and are water jet cut to length including the addition of any apertures. In the final steps, the glass fibre-reinforced plastic poles are fitted with the required accessories, packed and are ready to be delivered.



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