

# GEO ROD – HDPE Welding Rod

## Technical Data Sheet



HYMA PLASTIC  
SINCE 1975

Hyma GEO ROD is used for joining the liners by extrusion or by adding melted material (solder). It has a polyethylene based formulation giving it a high welding ability and good compatibility with Hyma Geomembranes both smooth and textured forms.

Test Property	Unit	Test Method	Value (*)	Value (*)
Nominal Thickness (1)	mm	ASTM D-5199	4.0	5.0
Color			Black	
Mean Diameter	mm		4 ± 5%	5 ± 5%
Density with Carbon Black	g/cm <sup>3</sup>	ASTM D-1505	≥ 0.94	≥ 0.94
Carbon Black Content	%	ASTM D-4218	2-3	2-3
Melt Flow	gm/10min	ASTM D-1238 190°C – 2.16 Kg	≤ 1	≤ 1
Melting Point by DSC	°C	----	125 ±10%	125 ±10%
Standard OIT	Min.	ASTM D-3895	≥ 100	≥ 100

### Extrusion Welding Protocol

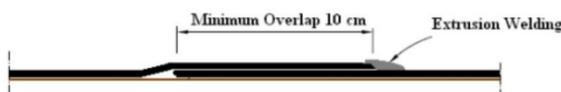
Weld by extrusion is carried out with a portable extruder, which melts the Hyma welding rod, creating a polyethylene seal that joints together both pieces of geomembrane.

This type of weld is used normally for joining different pieces (triple points) and where it is not possible to make a double track automatic welding, as in the case of repair patches and joining between geomembrane or HDPE profiles or geomembrane or pipes.

To guarantee the welding durability it is important to use a compatible welding rod, and it has to be manufactured with appropriate, approved raw material and additives.

### The weld extrusion operation should be made as follows:

- 1- The area to be welded should be completely clean and free of dust and debris.
- 2- Join the pieces by heat, to avoid any movement during the extrusion welding.
- 3- Sand a surface of approximately 6cm, the same for both liners. The sanding has to be made in a perpendicular direction to the weld.
- 4- When sanding, ensure that no more than 10mm of the surface of the liner is removed.
- 5- Extrusion of the material. The welding should have a minimum width of 3cm and the height has to be as a minimum, the same as the geo-membrane thickness. See figure below:



\* This information is subject to change without prior notice. Please contact Hyma for any updated information.

