HPE international

HPE INTERNATIONAL

WE PRODUCE

WITH CONTROL AND EFFICIENCY

PE-HD AND PP-H RODS

H.P.E. INTERNATIONAL SRL

Headquarters and Warehouse

Via A. Canova snc,
36055 Nove (VI) - Italy
VAT N.: IT 04088300167
T. +39 0424 591001 /
+39 0424 590960
info@hpeinternational.com

www.hpeinternational.com

High Density Polyethylene - PE300

The round and hollow rods that we produce in high density polyethylene (molecular weight 300.000) are one of the most widespread and used thermoplastics polymers, especially for the versatility in the fields of application and for the excellent price/quality ratio.

The peculiarity of this product is its optimal low friction coefficient and its workability, in addition to its chemical resistence.

Properties:

Chemical: PEHD is generally resistant to chemical substances with a pH from 0,5 to 13.5 at 23°C.
Mechanical: high impact strenght even at low temperatures and good vibration damping, for these reasons it is used for the construction of moulds for the food industry,tanks, rollers, gears, rings, flanges and sheaves.
Temperatures : PEHD is easy to work. Usually it can be used with temperatures going from -50°C to +80° C.
Alimentary aptitude: PEHD is odorless, flavorless and physiologically harmless, for this it is largely used in the alimentary industry.
Electric: PEHD has good insulating properties and excellent dielectric characteristics.

Fields of application examples:

HPE international

HDPE - PE300 ROUND RODS

Ø Diameter	Length
8	L=2000
10	L=2000
12	L=2000
15	L=2000
18	L=2000
20	L=2000
22	L=2000
25	L=2000
30	L=2000
35	L=2000
40	L=2000
45	L=2000
50	L=2000
55	L=2000
60	L=2000
65	L=2000
70	L=2000
75	L=2000
80	L=2000

Ø Diameter mm	Length mm
90	L=2000
100	L=2000
110	L=2000
120	L=2000
125	L=2000
130	L=2000
140	L=2000
150	L=2000
160	L=2000
170	L=2000
180	L=2000
200	L=2000
200	L=1000
225	L=2000
225	L=1000
250	L=2000
250	L=1000
300	L=2000
300	L=1000

Natural, Black, Green, Blue, Red, Yellow

HPE international

HDPE - PE 300 HOLLOW RODS

ø□D.e./ D.i	Length mm
50/20	L=2000
50/23	L=2000
50/25	L=2000
60/20	L=2000
60/30	L=2000
70/25	L=2000
70/40	L=2000
85/25	L=2000
85/30	L=2000
85/35	L=2000
85/50	L=2000
100/45	L=2000
100/65	L=2000

Natural / Black

Other diameters on demand with maximum external Ø100 mm.

Other colors on demand.

Polypropylene Homopolymer – PP-H

The round and hollow rods that we produce by extruding polypropylene, are largely used in the chemical, industrial, mechanical, galvanic and electric fields.
Thanks to its characteristics of non polarity which make it highly resistant to chemical products such as solvents, watery solutions, saline solutions, acid solutions and alcaline solutions even at high temperatures, PP can be used in many fields. In fact, from the chemical point of view, untill 120° C it maintains its resistance characteristics.

Properties:

Chemical: PP-H is resistant to chemical substances in fact it has a good resistance to water, to saline solutions, to acids, to alkali, alcohol and gasoline. PP is largely employed in the chemical industry for the production of containers for fuel oil and fuel tanks, galvanic basin, water depuration installations and mechanic components.
Mechanical: Eventhough its molecular weight of 0.91 gr/cm3 is inferior to the one of PE-HD, PP-H has high values of surface hardness and resistance to abrasion. This leads to a majour resistance to traction and dimensional stability.
Field of application: PP-H is extremely stable and relatively easy to work, it's used for the construction of components for the bottling industry (bushings, spacers) or for the realization of components for the food machines industry where a particular resistance to the contact with alimentary acid substances (fruit juice, tomato,lemon, pastry ingredients, meat, etc.) is required.
Temperatures: it's usually used with temperatures between +5°C and +90°C, it is resistant and rigid and it melts at a higher temperature even if it has a minor density compared to PEHD.
Alimentary aptitude: Since its surface is hard and shiny, PP is ideal for the places in which the formation of bacteria occurs. It is used in the production of components for the alimentary and pharmaceutical industry, in the industrial production of tanks and water pumps.
Electrical: PP-H has good insulating properties. Its excellent electric arc and dielectric resistance allows it to be used in electrical applications.

Fields of application examples:

HPE international

POLYPROPYLENE – PP-H ROUND RODS

Ø Diameter	Length mm
8	L=2000
10	L=2000
12	L=2000
15	L=2000
18	L=2000
20	L=2000
25	L=2000
30	L=2000
35	L=2000
40	L=2000
45	L=2000
50	L=2000
55	L=2000
60	L=2000
65	L=2000
70	L=2000
75	L=2000
80	L=2000

Ø Diameter mm	Length mm
90	L=2000
100	L=2000
110	L=2000
120	L=2000
125	L=2000
130	L=2000
140	L=2000
150	L=2000
160	L=2000
180	L=2000
200	L=2000
200	L=1000
225	L=2000
225	L=1000
250	L=2000
250	L=1000
300	L=2000
300	L=1000

Natural, Black, Grey

HPE international

POLYPROPYLENE HOLLOW RODS

ø D.e./ D.i	Length mm
50/20	L=2000
50/25	L=2000
60/30	L=2000
60/35	L=2000
60/40	L=2000
70/30	L=2000
70/40	L=2000
80/25	L=2000
80/30	L=2000
80/40	L=2000
80/50	L=2000
90/60	L=2000
100/50	L=2000
100/60	L=2000
100/65	L=2000

ø D.e./ D.i mm	Length mm
100/70	L=2000
100/80	L=2000

Grey / Natural

Other diameters on demand

With maximum

External Ø 100 mm.

Other colors on demand.

HDPE and PP-H Welding Wire

The welding wire that we produce can be used for the junction of components made of the same materials with special welding machines such as hot air guns and portable extruders. These, by the addition of the wire and through a thermal fusion procedure, allow a perfect sold.

Properties:

Mechanical: - produced by extrusion -
Fields of application: welding of sheets, tubes and hollow rods in PEHD and PP-H, that have the same melt flow index.
UV stabilized. The color difference does not affect the welding.
Temperatures: room temperature usage: from – 5°C to + 40°C in absence of humidity.
Melting temperatures of PEHD e PP-H:

- Hot air gun: from 260°C to 300°C
- Portable extruder: from 250°C to 285°C

Suitability: suitable in the alimentary field – compliant to 2002/95/CE (RoHS) and 2003/95/CE regulations.

Use:

General precautions for correct use:

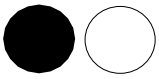
- Sheets, rods and other plastic products have to be equally melted;
- Temperature and air flow have to be regular;
- Welding wire and the surface must be clean;
- The air coming from the nozzle must not be polluted by water, oil or dirt;
- The junction must have a "V" pointed cavity;
- Make sure there are no air bubbles in the weld;
- Speed, temperature and time are fundamental data that must be respected. Pay attention to the recommendations of the suppliers of the welding machines.

Fields of application examples:

HDPE and PP-H Welding Wire

HDPE Welding Wire

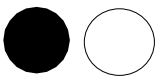
øDiam. mm	Kg spool
2 *	6
3	6
4	6
5 *	6



Black, Natural
Other colors on demand

HDPE Welding Wire

Section mm AxB	Kg spool
5x3	6
7x3 *	6



Black, Natural
Other colors on demand.

Every color's RAL code is purely indicative and therefore is not to consider a master of reference.
The color difference does not affect the welding.
The weight indicated are theoretical.

PP-H Welding Wire

øDiam. mm	Kg spool
2 *	6
3	6
4	6
5 *	6

Black, Grey, Natural
Similar Ral 7032
Other colors on demand

**On Demand*

PP-H Welding Wire

Section mm AxB	Kg spool
5x3	6
7x3 *	6

Black, Grey, White
Grey Similar RAL 7032 / White Similar RAL 9003
Other colors on demand

**On Demand*

Every color's RAL code is purely indicative and therefore is not to consider a master of reference.
The color difference does not affect the welding.
The weight indicated are theoretical.

Notes

H.P.E. INTERNATIONAL SRL

Headquarters and Warehouse

Via A. Canova snc,
36055 Nove (VI) - Italy
VAT N.: IT 04088300167
T. +39 0424 591001 /
+39 0424 590960
info@hpeinternational.com