

Technical datasheet

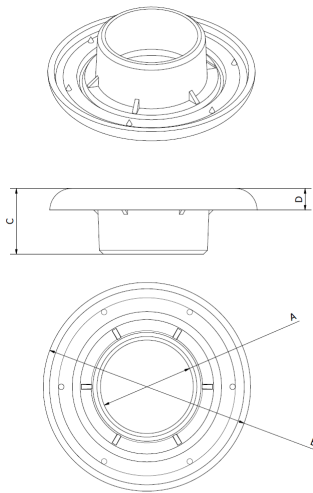
Clear Eyelet Ø12mm



Ref: **POP12I000** - Clear Eyelet Ø12mm

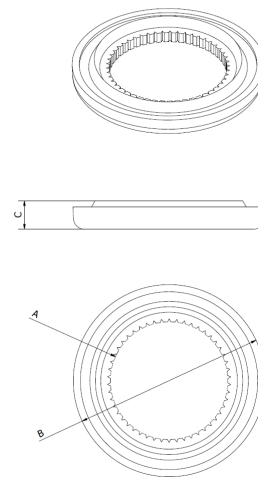
Ref: **PAP12I000** - Clear Washer Ø12mm

1. Dimensions



Eyelet

A Internal Diameter	11,56 ± 0,5mm
B Flange Diameter	26,25 ± 0,5mm
C Overall length	8,33 ± 0,5mm
D Flange thickness	2,74 ± 0,5mm



Washer

A Internal Diameter	15,50 ± 0,5mm
B Flange Diameter	24,25 ± 0,5mm
C Overall length	3,75 ± 0,5mm



2. Material composition

PLASTGrommet plastic eyelets are manufactured on a high-tech techno polymer blend with unique properties in terms of elongation, impact and UV resistance.

Environmentally responsible

- Free of PVC.
- Free of heavy metals (cadmium, lead and mercury).
- Free of anti-corrosives (hexavalent chromium).
- Free of Chlorides and Phthalates.
- UV protected.
- Food grade (EU and American FDA).
- Environmentally friendly, perfect match for printers using green inks & medias.
- Cal Prop 65 compliant (tested by QUIMA, formerly AsianInspection).

Recycling advantages

- PLASTGrommet offers the only true recyclable eyelets in the market.
- Using them, PP and PE banners are totally recyclable in the  and  waste stream, avoiding the need of any sorting technology.
- Certified by AIMPLAS with project #PR008-0184.

Certified by AIMPLAS



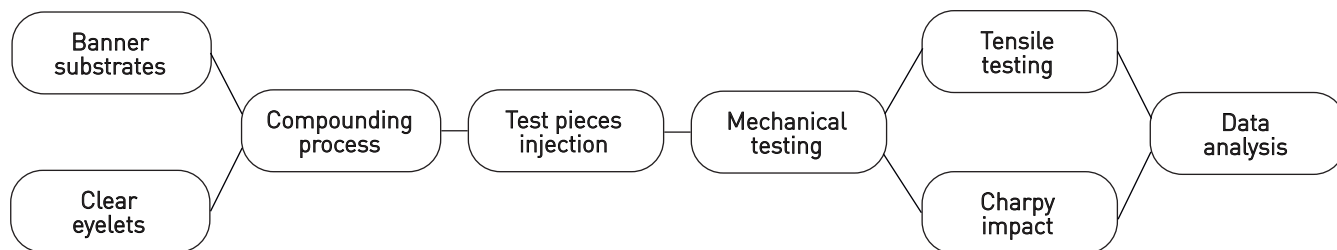
AIMPLAS
INSTITUTO TECNOLÓGICO
DEL PLÁSTICO

Project: PR008-0184 **Partial report:** PN-0020/10

Research objectives

To study if PP or HDPE banners with PLASTGrommet clear eyelets, can go to the PP HDPE waste stream without the need of any sorting technology to separate plastics.

Materials and Methods



Final conclusions

- PP and HDPE banners with PLASTGrommet clear eyelets are totally recyclable on the PP(5) or HDPE (2) waste stream.
- There is not need to separate the eyelets before the recycling process.
- The reprocessed plastic obtained maintains its mechanical properties, so it can be used again in the production cycle to manufacture new plastic products.

3. Sustainable eyelet production

PLASTGrommet products are manufactured at our plant in the beautiful town of Alcoy, Alicante (Spain), surrounded by mountains and only 45 minutes away from the Mediterranean Sea.



Raw material

Virgin resin delivered in bulk, minimizing the need for raw material packaging.



Plastic injection

Full electrical machines reduce the energy consumption by 35%, reduce sound emissions, have better precision and production quality.



Grinders

State-of-the-art machinery where plastic waste is eliminated from the molding process through the use of grinders to re-use it.



Packaging

Clear eyelets packaging is made of recycled cardboard to reduce environmental impact.

In our production process raw material comes in bulk in order to minimize packaging material, electric plastic injection machines reduce energy consumption and increase quality, grinders allow us to generate zero waste and boxes are made of recycled cardboard.

4. Packaging

Eyelets

1.000 pcs/bag

10.000 pcs/carton

Ref: POP12I000

Washers

1.000 pcs/bag

20.000 pcs/carton

Ref:PAP12I000



5. Further testing carried out

Resistance to chemicals and UV.

TEST DESCRIPTION	STANDARD	RESULTS		
CORROSION IN AMBIENCE OF SALINE NEUTRAL FOG	ASTM B-117:85	NO CHANGES IN THE SAMPLES		
EXPOSURE TO SUN LIGHT (XENON TEST)	UNE EN ISO 4892-2:2000 250 HOURS (+/-3,5 YEARS)	NO CHANGE IN COLOUR		
FASTNESS TO ACIDS	UNE-EN ISO-150 E05/98	TARTARIC ACID 5	ACETIC ACID 5	SULFURIC ACID 5
FASTNESS TO CHLORINATED WATER (SWIMMING-POOL WATER)	UNE-EN ISO 105-E03:1997	5		
FASTNESS TO SALFUMAN	AITEX TEST	5		
FASTNESS TO ALCOHOL	AITEX TEST	5		
FASTNESS TO CITRUS	AITEX TEST	5		
FASTNESS TO DRY CLEANING	UNE-EN ISO 105-D01:1996	CHANGE IN COLOUR 5	STAINNING IN THE SOLVENT 5	
FASTNESS TO BLEACHING: HYPOCLORITE	UNE-EN ISO 20105- N01:1996	5		
DETERMINATION OF pH VALUE	EN 3071:2006	7.39		
FASTNESS TO ALKALIS (SODIUM CARBONATE)	UNE-EN ISO-105 E06/1989	5		
FASTNESS TO PHOSPORIC ACID	AITEX TEST	5		
CLIMATIC AGNING (Samples were subjected to accelerated aging process during 48 horus to -40° C.)	AITEX TEST	LOOSE EYELETS No changes, it is possible to set them on fabric	EYELETS SET No changes	EYELETS SET ON FABRIC No changes

RAW MATERIAL	THERMOPLASTIC POLYMER	MEANING OF FASTNESS APPRAISAL EAVLUETED WITH ESCALE OF GREYS	
UL FLAMMABILTY CLASSIFICATION	94-V-2	CHANGE IN COLOUR:	STANING: 5 EVERY GOOD-EXCELLENT
DEFLECTION TEMPERATURE @ 0.455Mpa (4,6 kgf/cm2)	73 °C	5 GOOD BEHAVIOUS	4 GOOD
DEFLECTION TEMPERATURE @ 1.82Mpa (18,55 kgf/cm2)	65 °C	4-3 FAIR BEHAVIOUR	3 FAIR
		2-1 POOR BEHAVIOUR	2 POOR
			1 VERY POOR

All tests have been made at the certified AITEX's LAB. www.aitex.es



PLASTGrommet ®

Factory and Headquarters | Plásticos Alco S.L.
Carretera Font Roja, 23 | 03801 Alcoy (Alicante) | SPAIN
(+34) 965 339 969
info@plastgrommet.com

US Office | Alco Finishing Equipment, INC
8950 SW 7th Ct. Suite 1406 | Miami, FL 33156 | USA
(+1) 305 447 7040
usa@plastgrommet.com