

Pressed Blanks

Product Information

Pressed blanks are hot formed parts produced by manually pressing of re-heated, softened optical glass, specialty glass or filter glass.

SCHOTT molds high grade optical blanks, serving the precision and consumer segments of the market with Round Blanks, Prisms and various shapes for special applications.

In general, Pressed Blanks are attractive and preferred as preforms for an economical production of lenses, prisms, ball lenses and other geometries.

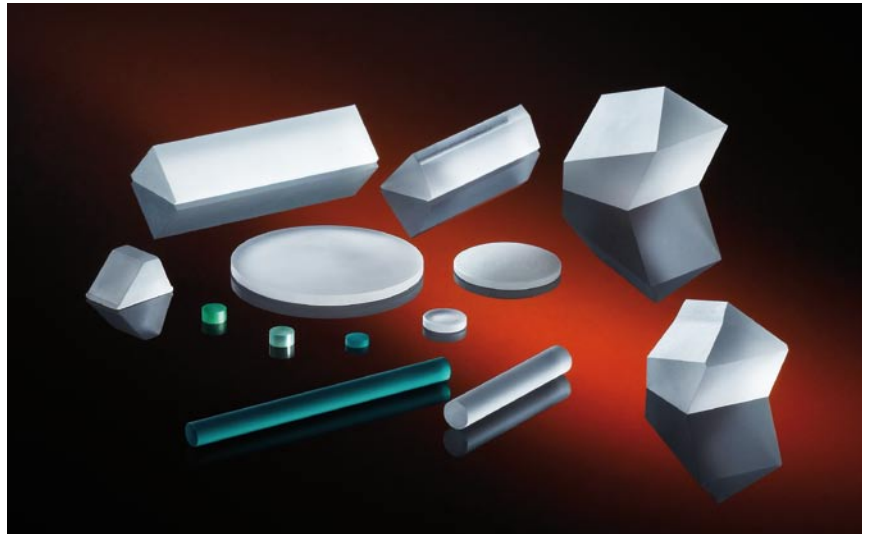
Specific Advantages

- Pressing of prisms and blanks with the highest degree of precision
- Express supply of small volumes for sampling
- Long experience in the production of high end precision parts
- Catering for a wide range of dimensions with special machines. From 0.2 g up to 6 kg; diameter 5 – 300 mm
- Offering added value steps, such as curve generation for blanks, plano-grinding and polishing for prisms
- Skilled in the handling of difficult glasses and geometries
- Producing and handling big volumes for mass production
- A large variety of glass types in stock for fast delivery and for a wide range of requirements

Applications

Pressed Blanks can be used in all optical applications, such as:

- Digital Cameras
- Digital Projection
- Binoculars
- Microscopy
- Industrial Applications



Materials

- All types of optical glass, such as N-BK7, N-FK51A, N-LASF31A, ...
- High transmission glass types (lead containing and lead free), such as SF57HHT, N-SF57HT, ...
- Radiation resistant glass types and certain inquiry glass types, such as BK7G18, SF11 ...
- Coloured Filter glasses, such as KG 3, ...
- Technical glasses, such as B270, Duran, ...

High Quality Optical Specifications (details are available on demand)

- Refractive index tolerance: up to $\pm 0,0002$ (step 1)
- Abbe number tolerance: up to $\pm 0,2\%$ (step 1)
- Refractive index variation within a lot up to $\pm 5 \times 10^{-5}$ (LH2)
- Stria free pressings in one (VS1) or two directions (VS2, for prisms)
- Low stress birefringence ≤ 4 nm/cm (SSK) in pieces up to 300 mm diameter
- Refractive index homogeneity in the individual piece
- Bubble/Inclusion selection according to ISO 10110

Single Supply Source –
From Raw Glass to Pressed Blanks and additional refining steps



SCHOTT
glass made of ideas

Dimensional Specifications

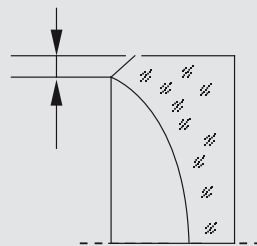
For Molded / Pressed Blanks (Hot formed parts)

Diameter (mm)	Tolerances			Wallside/Edge Thickness	
	For Diameter (mm)	For Center Thickness (CT) (mm)	Minimum Thickness (CT) (mm)	Minimum (mm)	Maximum (mm)
> 5– 18	+0/-0.18	±0.4	2	1.0	0.6xØ
> 18– 30	+0/-0.25	±0.4	3	1.5	0.45xØ
> 30– 60	+0/-0.3	±0.3	5	3	0.4xØ
> 60– 90	+0/-0.4	±0.3	6	4	0.3xØ
> 90–120	+0/-0.6	±0.4	7	5	0.3xØ
> 120–140	+0/-0.7	±0.5	8	5	0.3xØ
> 140–180	+0/-0.9	±0.5	8	6	0.3xØ
> 180–250	+0/-1.15	±0.5	10	8	0.3xØ
> 250–305	+0/-1.5	±0.6	10	8	0.3xØ

For Molded / Pressed Prisms (Hot formed parts)

Max. Edge Length (mm)	Tolerances			Socket (mm)
	For edge length (mm)	For HT (CT) (mm)	Angular	
> 5– 30	±0.2	±0.3	±0.5°	2
> 30– 60	±0.3	±0.4	±0.5°	2
> 60– 90	±0.4	±0.5	±0.5°	2.5
> 90–150	±0.5	±0.5	±0.5°	2.5
> 150–180	±0.7	±0.7	±0.5°	3
> 180 and diagonal <305	±1.0	±1.0	±0.5°	4

Chamfer Diameter (mm)	Safety Chamfer (mm)
> 5– 18	0.3
> 18– 90	0.5
> 90–110	0.7
> 110	1.0



The variation of the above safety chamfer is ±50%

Processing allowance for finished products:

- Molded Prisms/Molded Plates Add
 - 1–1.5 mm all round
 - 2–3 mm Base
- Molded Blanks
 - Ø ≤ 30 mm Add 0.75 mm all round
 - Ø > 30 mm Add 0.75–1 mm all round

For more information please contact:

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