



The METACONCEPT Group, a specialist in the manufacture of tin-based alloys for the production of parts via centrifugal processes for use in the jewellery and silverware industries, has joined forces with NICEM (Italy), the leading European manufacturer of centrifugal casting equipment and elastomers for these applications.

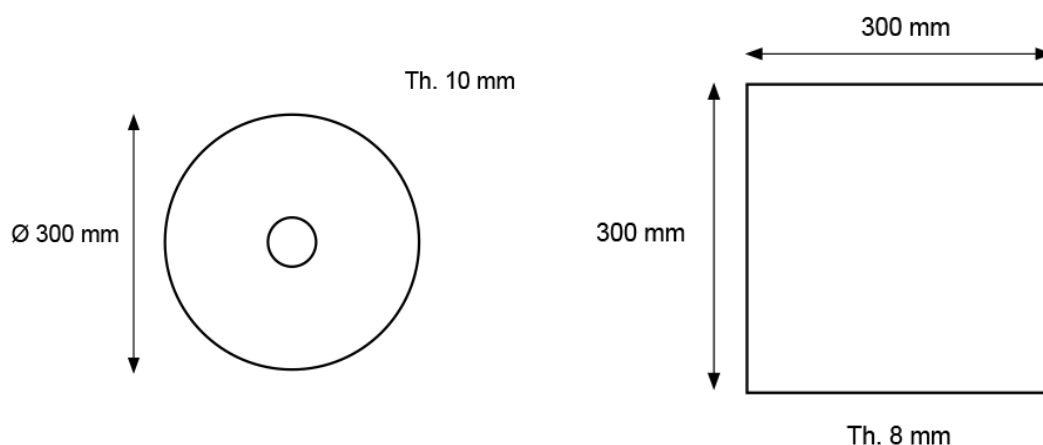
We can offer a range of unique services to our clients:

- We offer the best alloys on the market (lead-free alloys with a maximum of 50 ppm). Please refer to our arts and crafts alloy datasheet.
- We distribute a range of very high quality elastomers which are equally suitable for the creation of tin, zamak or polyester resin parts.
- We supply our clients with all the accessories necessary for the creation and preparation of moulds, such as talc, centring pins, ladles and gouges.
- We keep our clients informed of the latest centrifugal casting lines produced by NICEM and offer them equipment tailored to their needs.

The METACONCEPT Group also boasts a **technical laboratory** (with a full centrifugal line) where it offers training in the creation of silicone moulds.

Below you will find details of our **silicone product lines + accessories**. We can supply specific commercial and technical datasheets for all our centrifugal casting and mechanical polishing equipment (mass finishing).

We also offer **organic silicones and rubbers** for the creation of moulds for lost wax casting.



Characteristics

Designation	Shore hardness/ Hardness	% shrinkage	Type of production	Mechanical properties	Resistance to temp.	Pressure - Vulcanisation (bars)
Silicone disc Black Jack	58 / 60	2.0	Parts with large undercuts	Average malleability when raw, very high tensile strength, good flexibility	High	150
Silicone disc White B70	68 / 70	2.0	Parts with small undercuts	Poor malleability when raw, average tensile strength, average flexibility	High	110 - 130
Silicone disc Light blue BA 65 HT	65 / 67	2.3	Parts with medium undercuts	High malleability when raw, very high tensile strength, very good flexibility	Very high	110 - 130
Silicone disc Dark blue SB55HT	55	2.3	Parts with a very large undercut	Average malleability when raw, very high tensile strength, very good flexibility	High	110 - 130
Silicone disc Yellow G55	58 / 60	2.3	Parts with large undercuts	High malleability when raw, very high tensile strength, very good flexibility	Medium	110 - 130
Silicone disc White SB55 (with additive)	53 / 55	2.0	Parts with medium undercuts	Average malleability when raw, average tensile strength, average flexibility	Medium	110 - 130
Silicone disc Green SB50HT	49 / 51	2.0	Parts with a very large undercut	High malleability when raw, very high tensile strength, very good flexibility	High	110 - 130
Bi-composite silicone HT33 A – with HT33B	NC	NC	All types of parts for gravity casting	Cold silicone for the creation of moulds used for manual casting	Medium	N/A
Silicone block A32 Orange block 2 k	32	0.8	Used for inserts	High malleability when raw, very high tensile strength, very good flexibility	High	110 - 130

Vulcanisation time: 2 mm per mm of thickness (minimum duration 1 hour)

Vulcanisation temperature: 180°C

Designation	Shore hardness	Shrinkage in %	Type of production	Mechanical properties	Resistance to temp.	Specific pressure on the rubber
Silicone disc Green SB 50 / 99	50 / 52	0.50	Duplication of plastic, wood resin and wax models	Average malleability when raw, very high tensile strength, very good flexibility	High	50 - 60
Silicone plate Antique rose	50 / 53	0.35	Wax injection for lost wax casting	High malleability when raw, very high tensile strength, very good flexibility	High	110 - 130

Vulcanisation time: 2 mm per mm of thickness (minimum duration 1 hour)

Vulcanisation temperature: 82°C to 100°C

Storage period: 12 months in dry conditions away from direct sunlight.

These tables show the most commonly used silicones in the area of centrifugal casting:

Have you defined the type of application? [Contact us](#). Our technical staff will be happy to assist you in choosing the most suitable silicones.

Accessories for silicones

Name	Use	Special characteristics
Mould boxes	For the preparation and vulcanisation of silicone moulds	Available in diameters of 230 mm to 700 mm and 3 heights.
Centring pin	For the positioning and centring of 2 silicone discs	In square or conical form and in heights of 13 mm or 17 mm.
Sleeves and cutter blades	For the preparation of mould feeding channels	Several sizes available
Sleeves and gouges	For the preparation of mould feeding channels	Several sizes available There is a pocket with the 4 most frequently used instruments for preparing the mould.
Talc	Prevents sticking when casting the metal in the silicone mould	Talc with a neutral Ph and a specific granulometry of 2.5% at 5 μ . This talc contains no silicone, Do not use talc bought from a pharmacy as this may contaminate the silicone.
Silicone wire	Used as a flexible insert inside the 2 silicone discs	Several diameters available
Teflon wire	Used as a rigid insert inside the 2 silicone discs	Several diameters available
Ladles	For pouring the molten metal into the centrifuge	Stainless steel, 5 sizes available
Buffers FIPA	For the manual buffing of parts manufactured via centrifugal processes	Available in 180 g – 220 g – 400 g – 600 g and diameters of 20 x 160 mm or 10 x 120 mm.

Applications

Name	Use	Special characteristics
Silicone disc Black Jack	Tin and polyester resin	Available in Ø 230 mm, 300 mm and 400 mm and thicknesses of 5 mm – 10 mm – 15 mm
Silicone disc White B65	Tin	Available in Ø 230 mm – 300 mm and 400 mm and thicknesses of 5 mm – 10 mm – 15 mm
Silicone disc White B70	Tin and zamak	Available in Ø 230 mm – 300 mm and 400 mm and thicknesses of 5 mm – 10 mm – 15 mm
Silicone disc Light blue BA 65 HT	Tin and zamak	Available in Ø 230 mm – 300 mm and 400 mm and thicknesses of 5 mm – 10 mm – 15 mm
Silicone disc Dark Blue SB55HT	Tin	Available in Ø 230 mm – 300 mm and 400 mm and thicknesses of 5 mm – 10 mm – 15 mm
Silicone disc Fuchsia A 50	Tin and resin for lost wax casting	Available in Ø 230 mm – 300 mm and 400 mm and thicknesses of 5 mm – 10 mm – 15 mm
Silicone disc Pink RA70HT	Tin and zamak	Available in Ø 230 mm – 300 mm and 400 mm and thicknesses of 5 mm – 10 mm – 15 mm
Silicone disc Yellow G55	Tin	Available in Ø 230 mm – 300 mm and 400 mm and thicknesses of 5 mm – 10 mm – 15 mm
Silicone disc White SB55 (with additive)	Polyester resin	Available in Ø 230 mm – 300 mm and 400 mm and thicknesses of 5 mm – 10 mm – 15 mm
Silicone disc Green SB50HT	Tin, zamak and polyester resin	Available in Ø 230 mm – 300 mm and 400 mm and thicknesses of 5 mm – 10 mm – 15 mm
Transparent silicone HT33 A with HT33 B	Tin and polyester resin	Used for very small production quantities
Silicone block A32	Tin and polyester resin	Available in 2 kg blocks
Silicone disc Green SB 50 / 99	Tin	Available in Ø 230 mm – 300 mm and thicknesses of 5 mm – 10 mm
Silicone disc Antique rose	Tin and resin for lost wax casting	Plate of 300 x 300 x 6.35 mm

Silicones with a diameter of 400 mm or more are generally ordered specifically by the client.

Implementation

The product safety information sheet below is available upon request from the METACONCEPT Group.

The implementation process is specific to the chosen medium (metal or polyester resin) and the characteristics of the part being produced. [The METACONCEPT Group's technical department](#) will advise you on which silicone to choose and the appropriate implementation procedure.

Precautions for use

To prevent burns caused by the molten metal, it is advisable to wear a protective apron, shoes, gloves, helmet and glasses.

Do not smoke at the workstation.

The workstation must be well ventilated.

Wash your hands when leaving the workstation.

Comments:

Always use a flux suited to the intended use. [Contact our technical department](#) to ascertain which product is most suited to your application.

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