

MonTech Laboratory curing moulds for rubber, plastics, foam, wires and trial moulding

MonTech Precision Curing moulds - General Overview and Introduction

In our inhouse mould-making shop MonTech manufactures a comprehensive range of precise and durable sample curing moulds according to ISO, DIN, ASTM and GB standards in various different versions. MonTech curing moulds guarantee easy handling and accurate moulding results.

The molds are available with single or multiple cavities, hardened or polished stainless steel. Every type of sample preparation for any kind of material can be covered with more than 500 different types of standard curing mould designs, over 20 different material types, and more than 20 different surface finishings and coatings. Of course moulds can also be engineered, designed and machined per customer individual requirements and specifications.

Advanced curing mould design

Every MonTech curing mould system is a precise toolset to ensure the highest sample preparation precision and optimal results.

All MonTech mould and cover plates are exclusively made from high strength stainless steel, withstanding even highly aggressive compounds and materials.

The fabrication of every mould plate includes tempering to relieve all strains from the material, coplanar grinding for highest parallelism, machining with a dimensional precision of up to 0.002 mm, polishing, final inspection and quality control.

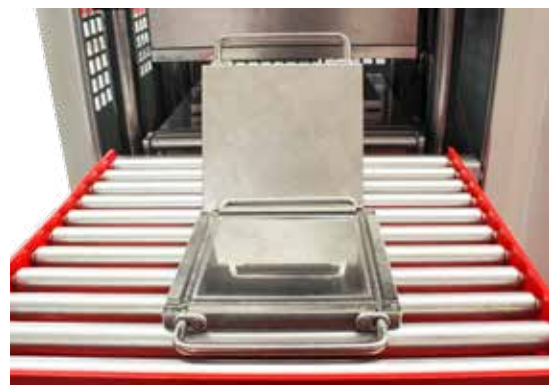
In addition to this, moulds can optionally be fitted with sensors for force, flow and temperature distribution measurement, allowing simple sample preparation, production trials and simultaneous data acquisition for tests like cure simulation.

MonTech moulds are

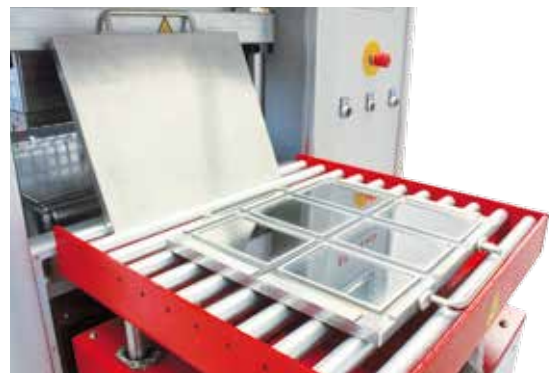
- Precisely FEM engineered and modelled
- Designed with advanced 3D solid modeling;
- CNC 5axis machined
- Precision ground
- Expertly honed
- Finely polished
- Made from High carbon content A2 mold steel
- thick, tempered mould plates resist warping, distribute heat and pressure evenly
- machined with deep overflow recesses (flash pockets) reduce overflow problems
- feature precision locator pins & receivers that assure precise mould plate alignment
- equipped with High strength fasteners which resist the effects of strain and stress and thermal fatigue

Standard surface finishes:

- Precision ground and fine-finished ($<Ra\ 0,4$) [STANDARD]
- Nitriding and black oxidizing
- Precision ground and mirror polished
- Tack reducing PTFE (Teflon) coating
- Wear-resistant TiN (Titanium Nitride) coating
- Chrome plating
- ...



ISO 2393 / ASTM D 3182 Single cavity sheet mould (150x150x2mm) Part no.: MT 218-02000



Six cavity sheet mould (6x 150x80x2mm)

Part no.: MT 218-01000



Tire / Fabric cord adhesion mould "H-Test"
according ASTM D 4776 Type 2a
Supplied including weight set
Part no.: MT 218-18009



Two cavity sheet mould (2x 200x95x2mm)

Part no.: MT 218-05004

MonTech standard laboratory curing moulds

MonTech stocks standard curing moulds for immediate delivery as well as - due to extensive in-house machining capabilities as well as a own mould making shop - can produce required curing moulds within a few days after technical clarification and drawing approval.

With over 800 moulds - solely for rubber lab applications - produced annually and wether moulds according to standards, customer adapted or individually designed moulds, MonTech is your competent partner for any sort of curing mould and mould fixture requirement.

| Mould type / class | Application | No. of cavities | Cavity dimensions mm | Overall dimensions mm + cover | Remark | Part - No |
|-------------------------------|--|-------------------|---|-------------------------------|--------------------------------|--------------|
| Sheet mould 6 Cav | Flat sheet moulding according ISO 2393 / ASTM D 3182 | 6 | 120x80x2 | 346x300x17 + 12 | Hinged | MT 218-01000 |
| Sheet mould 4 Cav | | 4 | 150x150x2 | 396x396x17 + 12 | | MT 218-03000 |
| Sheet mould 4 Cav | | 4 | 150x150x2 | 396x396x17 + 10 | | MT 218-13000 |
| Sheet mould 2 Cav | | 2 | 95x180x2 | 246x246x17 + 12 | | MT 218-05000 |
| Sheet mould 2 Cav | | 2 | 95x200x2 | 246x246x17 + 12 | | MT 218-05004 |
| Sheet mould 2 Cav | | 2 | 150x150x2 | 346x196x17 + 12 | | MT 218-05005 |
| Sheet mould 2 Cav | | 2 | 105x105x2 | 158x296x17 + 12 | | MT 218-05007 |
| Sheet mould 1 Cav | | 1 | 150x150x2 | 196x196x17 + 12 | | MT 218-02000 |
| Sheet mould 1 Cav | | 1 | 150x150x6 | 196x196x17 + 12 | | MT 218-02009 |
| Sheet mould 1 Cav | | 1 | 250x250x2 | 296x296x17 + 12 | | MT 218-02005 |
| Sheet mould 1 Cav | | 1 | 200x200x2 | 246x246x17 + 12 | | MT 218-02008 |
| Sheet mould 80x40+40x20 | | 4+3 | 80x30x2, 40x40x2 | 196x196x17 + 12 | | MT 218-24001 |
| Multi cavity mould Small 1 | various e.g. | 6 / 6 / 8 / 1 | Ø29x12.5 / Ø16x8 / Ø13x6.3 / 25x70x6 | 246x246x22 + 12 | | MT 218-06000 |
| Multi cavity mould Small 2 | Hardness, | 6 / 6 / 8 / 1 | Ø40x6 / Ø29x12.5 / Ø13x6.3 / 96x82x6 | 246x246x22 + 12 | | MT 218-06003 |
| Multi cavity mould 3 | Density, | 12 / 24 / 14 / 24 | Ø44x6 / Ø29x12 / Ø16x8 / Ø13x6.3 | 396x396x22 + 12 | | MT 218-06007 |
| Multi cavity mould 4 | Abrasion, | 24 / 16 / 1 | Ø40x4 / Ø8x4 / 72x208x4 | 396x396x17 + 12 | | MT 218-06010 |
| Multi cavity mould 5 | Rebound, | 24 / 16 / 1 | Ø40x6 / Ø8x6 / 72x208x6 | 396x396x17 + 12 | | MT 218-06011 |
| Multi cavity mould 6 | Compr. set, | 11 / 18 / 18 | Ø42x6 / Ø16x6 / Ø13x6 | 296x296x17 + 12 | | MT 218-06012 |
| Multi cavity mould 7 | Dispersion, | 5 / 2 | Ø43x6 / 150x150x2 | 346x260x17 + 12 | | MT 218-06017 |
| Multi cavity mould 8 | ... | 4 / 8 | 150x150x2 / Ø43x6 | 446x446x17 + 12 | | MT 218-06019 |
| Circular button mould 2 plate | Rebound | 9 | Ø29x12.7 | 196x196x17 + 12 | | MT 218-06008 |
| Circular button mould 2 plate | Rebound | 16 | Ø29x12.7 | 246x246x22 + 12 | | MT 218-10004 |
| Circular button mould 2 plate | Hardness / SG | 16 | Ø40x6 | 246x246x17 + 12 | | MT 218-11000 |
| Circular button mould 2 plate | Hardness / SG | 9 | Ø42x6 | 196x196x17 + 12 | | MT 218-11003 |
| Circular button mould 2 plate | Ring cutting | 9 | Ø60x6 | 246x246x17 + 12 | | MT 218-11002 |
| Circular button mould 2 plate | Ring cutting | 20 | Ø65x4 | 396x396x17 + 12 | | MT 218-06015 |
| Circular button mould 3 plate | Compr. set | 16 | Ø10x10 | 230x160x10 + 2x10 | fixed handles | MT 218-14004 |
| Circular button mould 3 plate | Abrasion | 16 | Ø16x10 | 230x160x10 + 2x10 | | MT 218-14001 |
| Circular button mould 3 plate | Flexometry | 9 | Ø18x25.4 | 156x156x25.4 + 2x12 | | MT 218-15013 |
| Circular button mould 3 plate | Rebound small | 16 | Ø29x12.7 | 246x246x12.7 + 2x12 | | MT 218-10000 |
| Circular button mould 3 plate | Hardness / SG | 1 | Ø39x6 | Ø108x6 + 2x10 | | MT 218-07001 |
| Circular button mould 3 plate | Hardness / SG | 33 | Ø42x6 | 396x396x6 + 2x10 | | MT 218-15003 |
| Circular button mould 3 plate | Hardness / SG | 36 | Ø43x6 | 396x396x8 + 2x12 | | MT 218-15000 |
| Circular button mould 3 plate | Hardness / SG | 12 | Ø50x6 | 346x296x6 + 2x12 | | MT 218-15015 |
| Circular button mould 3 plate | Rebound large | 9 | Ø50x20 | 246x246x20 + 2x12 | | MT 218-09000 |
| Circular button mould 3 plate | Rebound large | 9 | Ø50x12 | 246x246x12 + 2x12 | | MT 218-15011 |
| Square button mould 2 plate | Hard / SG / Abr | 20 / 18 | 51x51x6 / Ø16x6 | 396x296x17 + 12 | Grid mould Mould rail | MT 218-24003 |
| Square button mould 2 plate | | 4 | 120x60x6.5 | 346x196x17 + 12 | | MT 218-03014 |
| Square button mould 2 plate | DMA | 9 | 70x70x0.85 | 310x310x21 + 11 | | MT 218-25000 |
| Square button mould 2 plate | | 6 / 3 | 130x175x2x6 / 130x30x8 | 446x446x17 + 17 | | MT 218-16001 |
| Square button mould 3 plate | Dispersion | 24 | 30x8x6 | 296x296x6 + 2x10 | fixed handles | MT 218-22015 |
| Square button mould 3 plate | Dispersion | 24 | 50x12x6 | 296x296x6 + 2x10 | | MT 218-22000 |
| Square button mould 3 plate | Plastics sheets | 4 | 100x100x0.5-4.5 | 296x296x0.5-4.5 + 2x17 | conical cavity | MT 218-22011 |
| Square button mould 3 plate | Foam / Sponge | 1 | 130x130x20 conical | 196x196x20 + 2x12 | | MT 218-22017 |
| De-Mattia Fatigue | ISO 132 | 5 | 25x150x6.3 with kink | 346x206x17 + 17 | | MT 218-04000 |
| Fatigue to failure FTFT | ASTM D 4482 | 2 | Strips with flanges and marks | 296x346x17 + 17 | | MT 218-08000 |
| Positive mould Ø50 | Plastics | 1 | Ø200x2 / 4 / 10 | 246x246x27 + 17-27 | | MT 218-23005 |
| Positive mould 150x150 | Fabric adhesion | 1 | 150x150x4 | 196x196x15 + 15 | | MT 218-17015 |
| Cord adhesion H-Test 2B | ASTM D 4776 2B | 10 | 177.8x6.4x9.52 Slot width 1.17 | ~450x196.8x25.4 + 12 | incl. weights incl. weights | MT 218-18006 |
| Cord adhesion H-Test 2A | ASTM D 4776 2A | 10 | 177.8x6.4x6.35 Slot width 1.17 | ~430x196.8x25.4 + 12 | | MT 218-18009 |
| Cord and wire adhesion 25 | ASTM D 1871 | 1 | 200x25x12.5 with 12 slots 1.15 | 246x146x12.5 + 12+10 | | MT 218-21001 |
| Cord and wire adhesion 12.5 | ASTM D 1871 | 1 | 200x12.5x12.5 with 12 slots 1.15 | 246x146x12.5 + 12+10 | | MT 218-21002 |
| Cord and wire adhesion 50 | ASTM D 1871 | 1 | 200x50x12.5 with 12 slots 1.15 | 246x146x12.5 + 12+10 | | MT 218-21003 |
| Beadwire adhesion 50 | ASTM D 1871 | 1 | 200x50x12.5 with 12 slots 1.20 | 246x146x12.5 + 12+10 | | MT 218-21004 |
| Steel cord adhesion | ASTM D 2229 | 4 | 200x12.5x12.5 with 15 slots 1.80 | 300x300x12.5 + 2x10 | incl. weights | MT 218-21020 |
| Cord adhesion H-Test ISO | ISO 4647 | 8 | 100x6.4x3.2 with 4 slots 1.2x3 (opt. 0.8x3) | ~400x145x15 + 12 | | MT 218-21061 |

All moulds are supplied with handles and cover platen unless otherwise noted. Stated overall dimensions do not include handles (~120mm add.), hinges or rails. Hinges or rails are optionally available for each mould type. Mould calibration and certification is optionally available. Detailed specification and approval drawings for standard moulds available upon request.