ROCTOOL トライアル用金型

ここに記載されている金型はお客様にご利用いただける金型です。
トライアルの場所、必要な誘導装置(Generator) 成形機(Machine)サイズを確認いただけます。

各々の型の仕様書には部品サイズ、型サイズ、加熱温度、加熱スピード、また推奨する材料、また利用目的、消費する高周波出力パワーを確認いただけます。

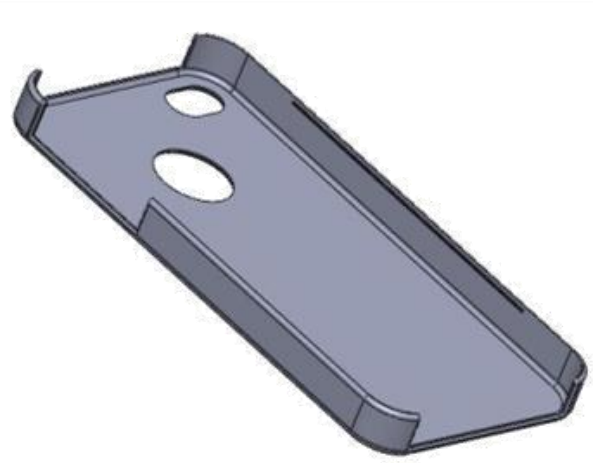
ご計画の部品サイズと比較され類似の金型で必要な情報としてご参照下さい。

射出成形用金型

Mold ref.	Mold name	Owner	Location	Machine	Generator
INJ_05	AUTO PART	Roctool	Roctool, France	160T	DZ 100 kW
INJ_06	K10-IPHONE4	Roctool	Roctool, France	160T	DZ 100 kW
INJ_07-1	LOGO	Roctool	Roctool, USA	160T	DZ 100 kW
INJ_07-2	LOGO MIP	Roctool	Asano, Japan	100T	DZ 150 kW
INJ_07-3	LOGO RITEMP	Roctool	Roctool, France	160T	DZ 100 kW
INJ_08	PPLAST	Proplast	Proplast, Italy	200T	100 kW
INJ_09	METALLICA	Roctool	Roctool, USA	160T	DZ 100 kW
INJ_10	SHASTA	Flex	NiKKi Fron, Japan	200T	100 kW
INJ_11	BOX	Roctool	Roctool, France	160T	DZ 100 kW
INJ_12	CLUSTER	Proper Group	Proper Group, USA		200 kW
INJ_13	TABLET	ComDel	ComDel, USA		200 kW
INJ_14	FRONT BEZEL	Roctool	Roctool, France	160T	DZ 100 kW
INJ_15	PROFILE	Roctool	Roctool, France	160T	DZ 100 kW
INJ_16	LASER GAME	Roctool	Kubousek, Czech Republic	450T	DZ 100 kW
INJ_17	BOX 2	Roctool	Roctool, France	160T	DZ 100 kW
INJ_18	PLAQUE 2K		Roctool, USA	160T	DZ 100 kW
INJ_19	PLAQUE 2K	Roctool	Roctool, France	160T	DZ 100 kW
INJ_20	PLAQUE 2K	Roctool	Polar Form, Germany	155T / 275T	50 kW + 100 kW
INJ_21	PLAQUE 2K	Roctool	Roctool, France	160T	DZ 100 kW
INJ_22	PLAQUE 2K	Flex	Flex, China		
INJ_23	INNOTOOL 3C	Roctool	Roctool, France	160T	DZ 100 kW
INJ_24	INNOTOOL AUTO	Roctool	Roctool, France	160T	DZ 100 kW
INJ_27	ZEBULON	Roctool	Roctool, France	160T	DZ 100 kW
INJ_30	ZEBULON	Roctool	Roctool, USA	160T	DZ 100 kW
INJ_31	SPECIMEN V2	Roctool	Roctool, France	160T	DZ 100 kW

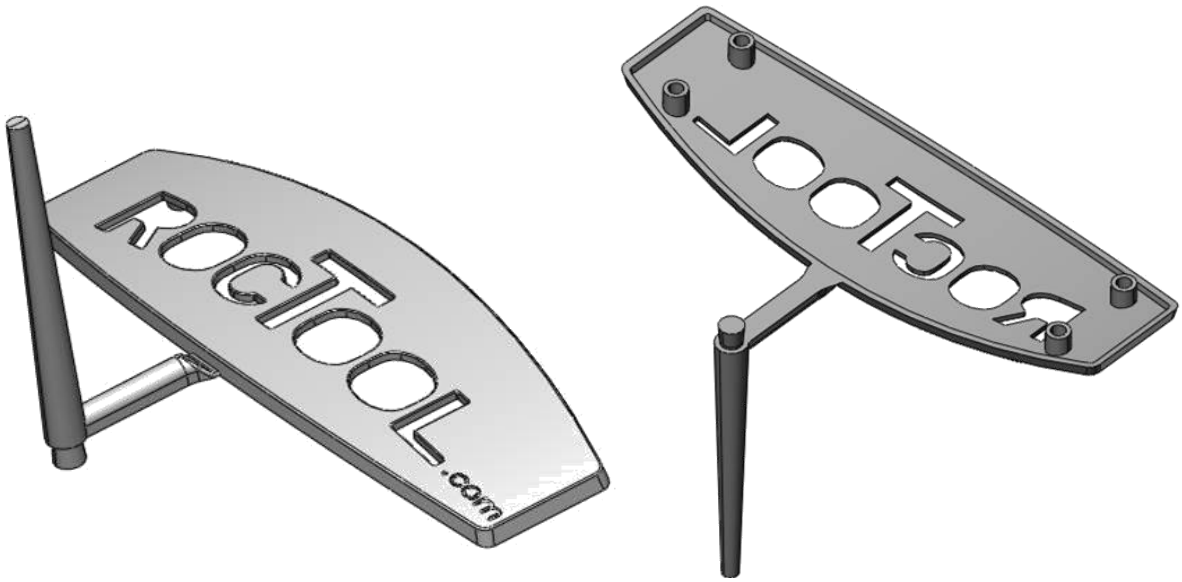
プレス用金型

Mold ref.	Mold name	Owner	Location	Machine	Generator
COM_01	iPhone 3	RocTool	RocTool, Taiwan	50T / 100T	50kW
COM_02	iPhone 4	RocTool	RocTool, France	50T	50 kW
COM_03a	iPad 1	RocTool	RocTool, Taiwan	50T / 100T	50 kW
COM_03b	iPad 1	RocTool	Nikki Fron, Japan	50T / 100T	50 kW
COM_04	iPad 2	RocTool	RocTool, France	50T / 100t	50 kW
COM_05	R12 RTM	RocTool	IVW, Kaiserslautern	100t	2x 100 kW
COM_06	IVW2	IVW	IVW, Kaiserslautern	300t	300 kW
COM_07	TIN tube	RocTool	RocTool, Taiwan	100t	50 kW
COM_08	Composite Car	PVL	Plastivaloire, France	50t	50 kW
COM_09	Hybrid	RocTool	RocTool, France	50t	100 kW
COM_10	JEC-US-12	RocTool	Comdel, USA	100t	100 kW
COM_11	Plate Mold	Armines	Clément Ader, France	100t	200 kW
COM_12	TC3 Plate Mold	RocTool	RocTool, Taiwan	100t	200 kW
COM_13	RocTab	RocTool	RocTool, Taiwan	100t	100 kW
COM_14	Boomerang	RocTool	-	100t	2x 50kW
COM_15	TC3 Plate Mold	RocTool	Asano, Japan	300t	2x 50kW
COM_16	Hood LIT	KTX	RocTool, France	None	2x 100 kW
COM_17	Sabic (compression)	Sabic	Sabic, USA	300t	2x 150 kW
COM_18	Sabic (hybrid)	Sabic	Sabic, USA	300t	2x 100 kW



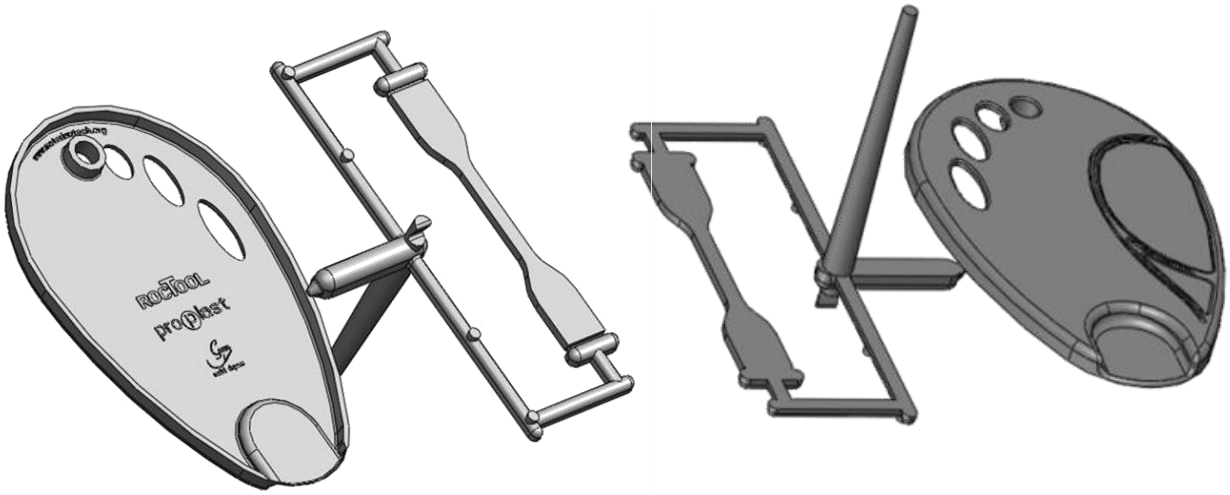
INJ_06	K10-IPHONE4
Technology	3iTech®
Heating	2 sides
Max. usable power	80 kW
Mold size	465 x 350 x 305 mm
Mold weight	240 kg
Number of cavities	2
Number of gates	1 fan gate
Type of injection	Cold
Slider(s) / Lifter(s)	No
Max. surface temperature	250°C
Part size	120 x 62 x 10 mm
Part volume	8.7 cm^3
Grained area	Yes
Gloss area	Yes
Nominal thickness	1 mm
Minimum thickness	1 mm
Known material(s)	ABS/PC; PC
Maximum fiber rate	10%
Average cycle time	45 to 55 s
Technical interest(s)	Weld lines
	Flat surface
	Roctool logo + laser texturing

ROCTOOL INJECTION MOLDS FOR TRIALS

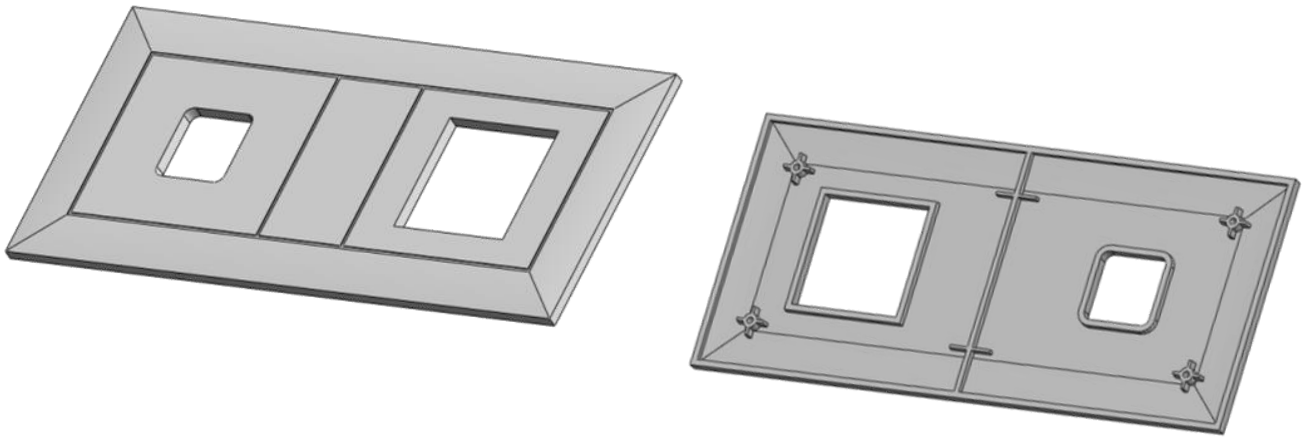


INJ_07-1 INJ_07-2 INJ_07-3	LOGO LOGO MIP LOGO RITEMP
Technology	3iTech®
Heating	1 side
Max. usable power	30 kW
Mold size	346 x 346 x 393 mm
Mold weight	270 kg
Number of cavities	1
Number of gates	1 fan gate
Type of injection	Cold
Slider(s) / Lifter(s)	No
Max. surface temperature	200°C
Part size	162 x 54 x 15 mm
Part volume	12.4 cm^3
Grained area	No
Gloss area	Yes
Nominal thickness	1.8 mm
Minimum thickness	1.8 mm
Known material(s)	-
Maximum fiber rate	20%
Average cycle time	30 to 35 s
Technical interest(s)	Weld lines
	Curved surface
	Roctool logo

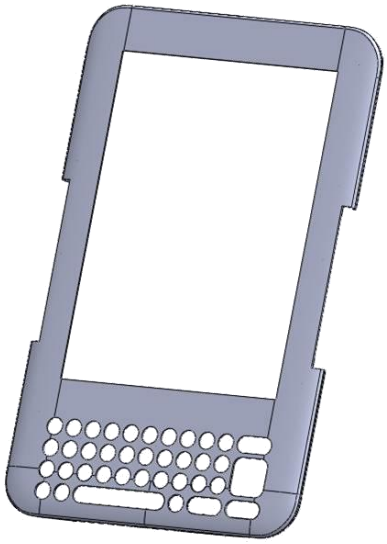
ROCTOOL INJECTION MOLDS FOR TRIALS



INJ_08	PPLAST
Technology	3iTech®
Heating	2 sides
Max. usable power	60 kW
Mold size	350 x 300 x 280 mm
Mold weight	190 kg
Number of cavities	1 + 1
Number of gates	2 fan gates (specimen) and/or 1 fan gate (GEM) (rotating insert)
Type of injection	Cold
Slider(s) / Lifter(s)	No
Max. surface temperature	200°C
Part size	115 x 123 x 8 mm
Part volume	15.1 cm^3
Grained area	Yes
Gloss area	Yes
Nominal thickness	2 mm (specimen), 1.5 mm (GEM)
Minimum thickness	0.4 mm (GEM)
Known material(s)	PC; ABS; ABS/PC; PA
Maximum fiber rate	30%
Average cycle time	35 to 45 s
Technical interest(s)	Weld lines
	Curved surface
	Dog bone specimen
	Roctool logo

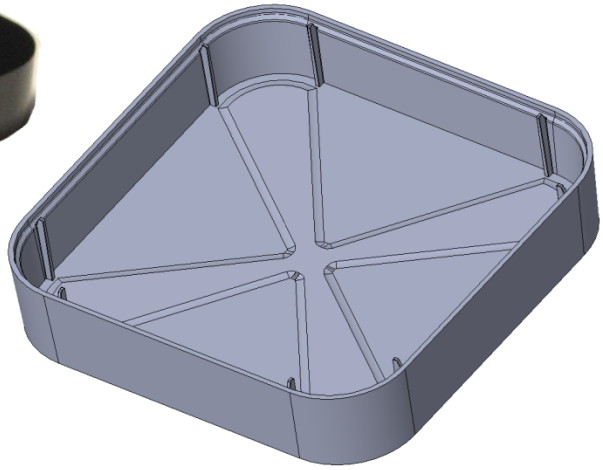


INJ_09	METALLICA
Technology	3iTech®
Heating	2 sides
Max. usable power	100 kW
Mold size	450 x 300 x 430 mm
Mold weight	350 kg
Number of cavities	1
Number of gates	6 fan gates (2 rotating inserts)
Type of injection	Hot runner (4 hot tips on mini-sprue)
Slider(s) / Lifter(s)	No
Max. surface temperature	300°C
Part size	190 x 90 x 5 mm
Part volume	35.3 cm^3
Grained area	Yes
Gloss area	Yes
Nominal thickness	2 mm
Minimum thickness	2 mm
Known material(s)	ABS/PC; PC; ABS
Maximum fiber rate	30%
Average cycle time	40 s
Technical interest(s)	Weld lines
	Hot tip selection / Gate selection
	Grained & glossy areas

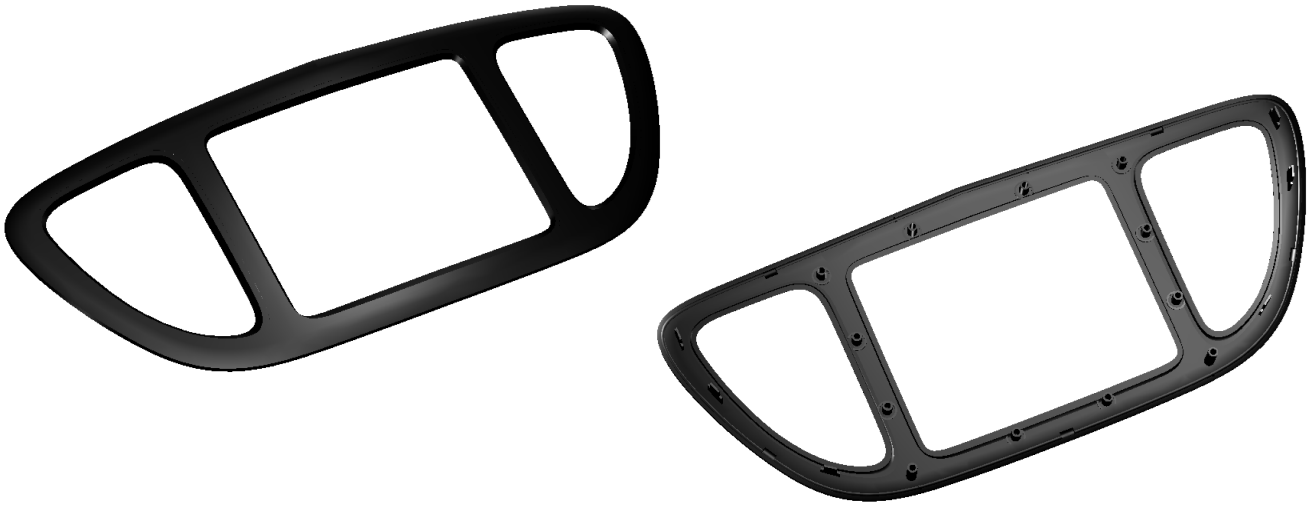


INJ_10	SHASTA
Technology	3iTech®
Heating	1 side
Max. usable power	50 kW
Mold size	520 x 670 x 570 mm
Mold weight	1000 kg
Number of cavities	1
Number of gates	6 banana gates
Type of injection	Hot sprue on cold runners
Slider(s) / Lifter(s)	Yes
Max. surface temperature	200°C
Part size	190 x 125 x 8.5 mm
Part volume	11.3 cm^3
Grained area	Yes (2 types)
Gloss area	No
Nominal thickness	0.9 mm
Minimum thickness	0.5 mm
Known material(s)	ABS/PC; PC
Maximum fiber rate	30%
Average cycle time	40 s
Technical interest(s)	Weld lines with thin wall
	Grained & glossy areas

ROCTOOL INJECTION MOLDS FOR TRIALS

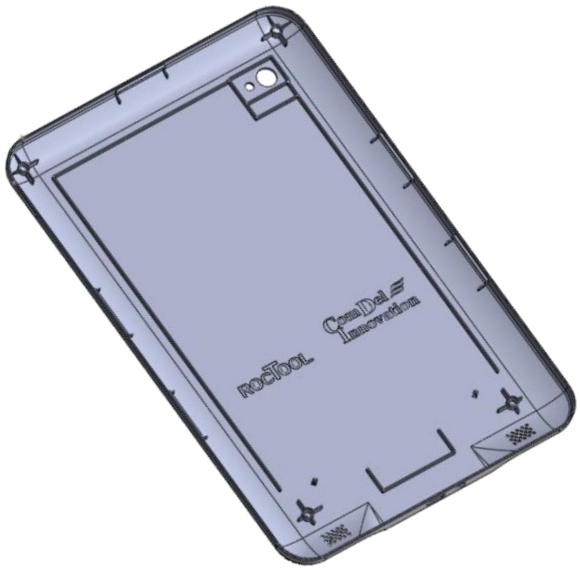


INJ_11	BOX
Technology	3iTech®
Heating	1 side
Max. usable power	40 kW
Mold size	330 x 372 x 377 mm
Mold weight	300 kg
Number of cavities	1
Number of gates	1
Type of injection	Single hot tip direct on part
Slider(s) / Lifter(s)	Yes
Max. surface temperature	250°C
Part size	90 x 90 x 20 mm
Part volume	30 cm^3
Grained area	Yes (Roctool logo)
Gloss area	Yes
Nominal thickness	2.5 mm
Minimum thickness	2 mm
Known material(s)	ABS/PC; PC; SMA; ASA; ABS
Maximum fiber rate	0%
Average cycle time	35 s
Technical interest(s)	Aesthetic
	High gloss & laser texturing



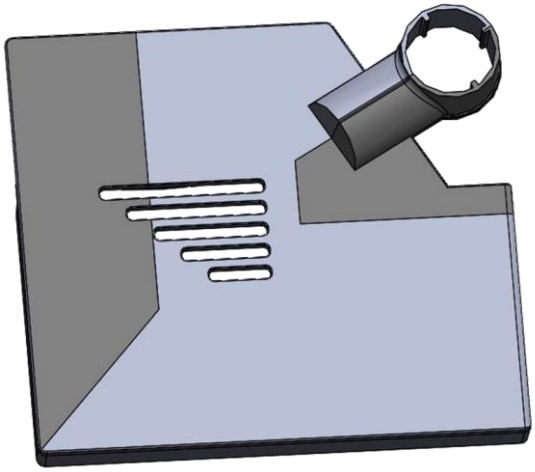
INJ_12	CLUSTER
Technology	3iTech®
Heating	1 side
Max. usable power	100 kW
Mold size	-
Mold weight	-
Number of cavities	1
Number of gates	4 banana gates
Type of injection	Cold
Slider(s) / Lifter(s)	Yes
Max. surface temperature	250°C
Part size	350 x 150 x 29 mm
Part volume	46 cm^3
Grained area	Yes
Gloss area	Yes
Nominal thickness	2.5 mm
Minimum thickness	2.5 mm
Known material(s)	ABS/PC; PC; SMA; POM; PBT; ASA; ABS; PET; PA; TPO
Maximum fiber rate	15% (mold surface not treated)
Average cycle time	44 s
Technical interest(s)	Weld lines
	Ribs and bosses

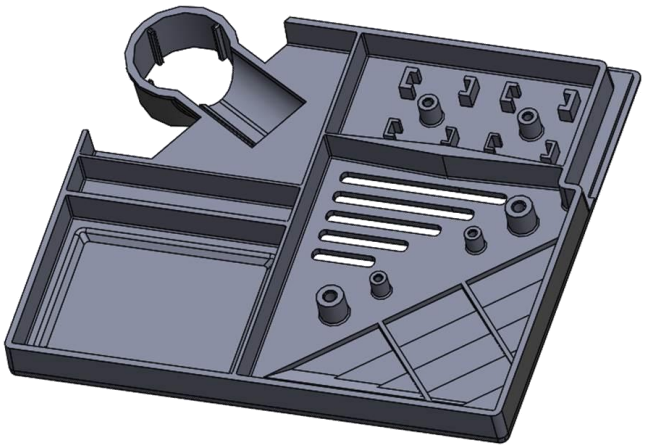
ROCTOOL INJECTION MOLDS FOR TRIALS



INJ_13	TABLET
Technology	3iTech®
Heating	2 sides
Max. usable power	100 kW
Mold size	405 x 715 x 500 mm
Mold weight	850 kg
Number of cavities	1
Number of gates	2
Type of injection	Hot runner (2 hot tips with shut-off valves direct on part)
Slider(s) / Lifter(s)	Yes
Max. surface temperature	250°C
Part size	180 x 120 x 8 mm
Part volume	19.3 cm^3
Grained area	Yes
Gloss area	Yes
Nominal thickness	0.8 mm
Minimum thickness	0.8 mm
Known material(s)	ABS/PC; PC; SMA; ASA; ABS; PA
Maximum fiber rate	30% (mold surface not treated)
Average cycle time	30 to 40 s
Technical interest(s)	Thin wall
	Weld lines
	Small grids
	Grained & glossy areas

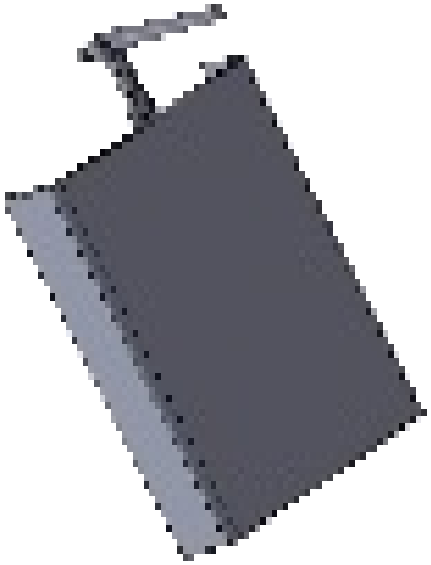
ROCTOOL INJECTION MOLDS FOR TRIALS

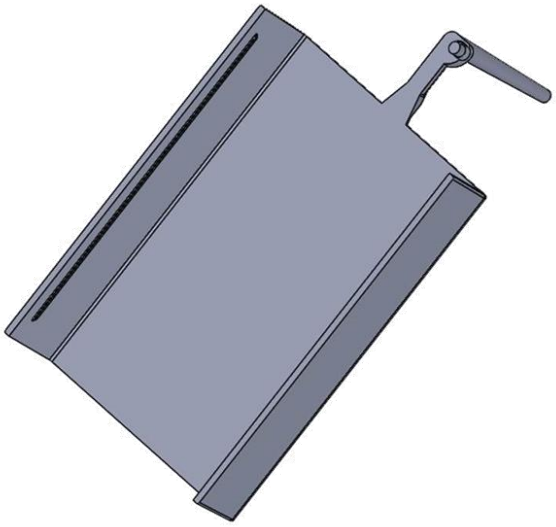




INJ_14	FRONT BEZEL
Technology	3iTech®
Heating	2 sides
Max. usable power	80 kW
Mold size	446 x 396 x 402 mm
Mold weight	555 kg
Number of cavities	1
Number of gates	2
Type of injection	Hot runner (2 hot tips on cold runners)
Slider(s) / Lifter(s)	No
Max. surface temperature	230°C
Part size	150 x 135 x 25 mm
Part volume	56 cm^3
Grained area	Yes
Gloss area	Yes
Nominal thickness	2.5 mm
Minimum thickness	0.8 mm
Known material(s)	ABS/PC; PC, PP; ABS
Maximum fiber rate	30% (mold surface not treated)
Average cycle time	-
Technical interest(s)	Thin wall
	Sink marks
	Ribs & bosses
	Weld lines
	Grained & glossy areas

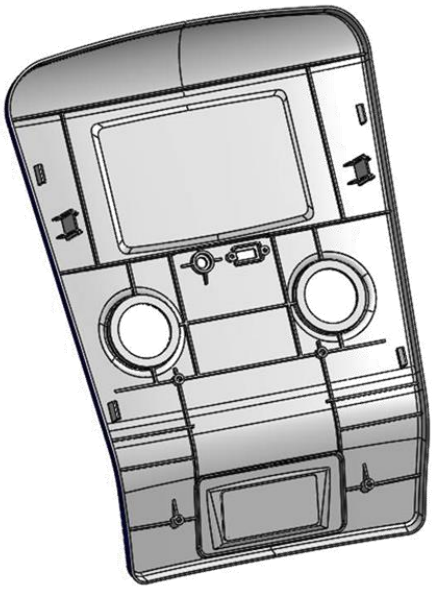
ROCTOOL INJECTION MOLDS FOR TRIALS



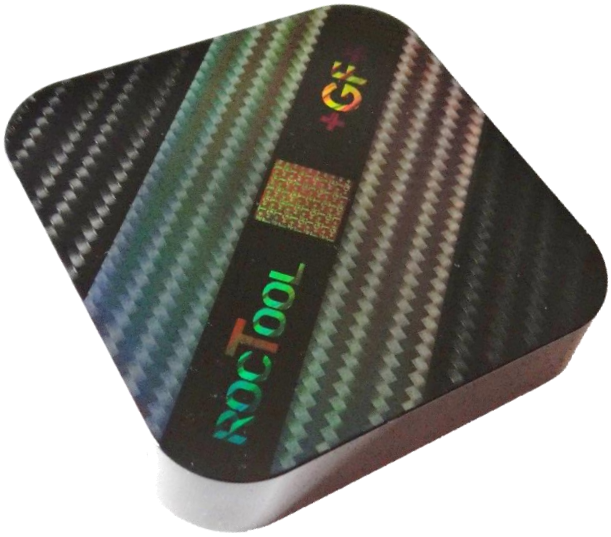


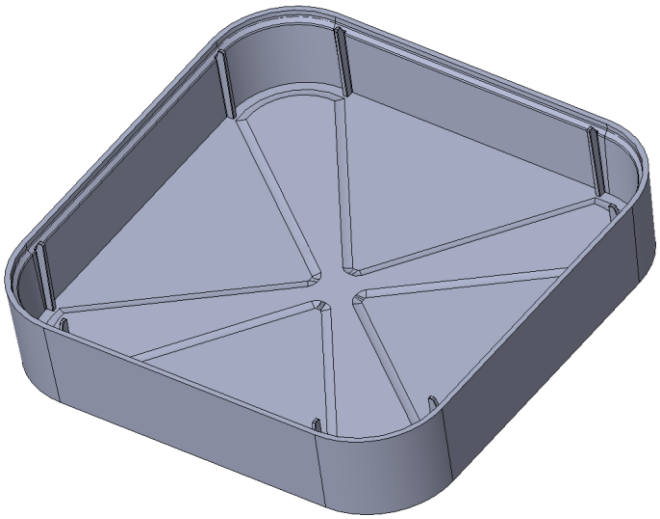
INJ_15	PROFILE
Technology	3iTech®
Heating	2 sides
Max. usable power	80 kW
Mold size	396 x 446 x 405 mm
Mold weight	560 kg
Number of cavities	1
Number of gates	1 fan gate
Type of injection	Cold
Slider(s) / Lifter(s)	No
Max. surface temperature	320°C
Part size	155 x 120 x 8 mm
Part volume	85 cm^3
Grained area	No
Gloss area	Yes
Nominal thickness	3.0 mm
Minimum thickness	3.0 mm
Known material(s)	PP, PA, ABS/PC; PC
Maximum fiber rate	50%
Average cycle time	60 s
Technical interest(s)	High temperature
	High gloss (cavity treated with Balitherm® Primeform from Oerlikon Balzers)
	Flat plates can be cut from molded samples
	IronJaw® clamping force booster

ROCTOOL INJECTION MOLDS FOR TRIALS

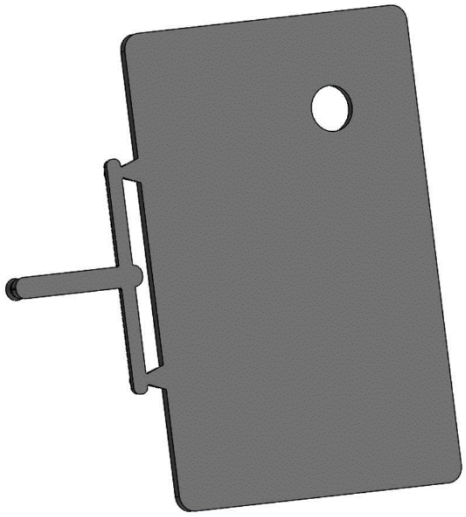


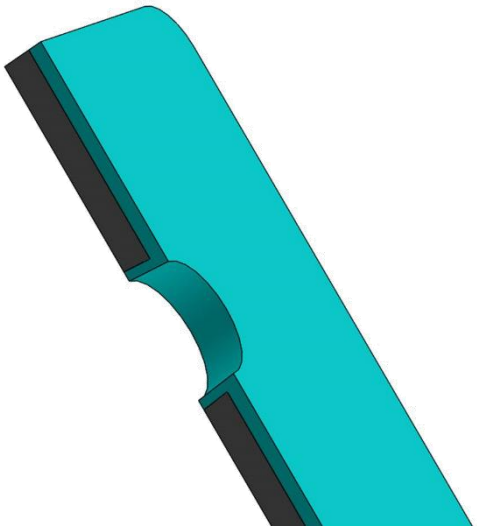
INJ_16	LASER GAME
Technology	3iTech®
Heating	1 side + local heating at the back
Max. usable power	150 kW + 30 kW
Mold size	596 x 546 x 524 mm
Mold weight	1240 kg
Number of cavities	1
Number of gates	2
Type of injection	Hot runner (2 hot tips with shut-off valves direct on part)
Slider(s) / Lifter(s)	Lifters
Max. surface temperature	250°C
Part size	350 x 253 x 70 mm
Part volume	182 cm^3
Grained area	Yes + Laser texturing
Gloss area	Yes
Nominal thickness	1.9 mm
Minimum thickness	1.2 mm
Known material(s)	ABS/PC; PC; ABS; PMMA – MuCell® compatible
Maximum fiber rate	No fibers allowed in this mold
Average cycle time	55 s
Technical interest(s)	Automotive interior part
	Many decoration patterns made by laser texturing process
	High gloss & low gloss combination
	Thin wall area



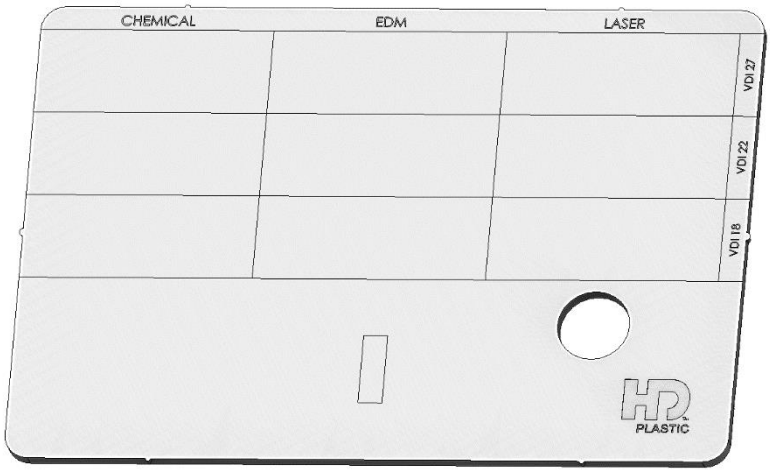


INJ_17	BOX 2
Technology	3iTech®
Heating	1 side
Max. usable power	40 kW / cavity
Mold size	346 x 446 x 460 mm
Mold weight	525 kg
Number of cavities	2
Number of gates	1
Type of injection	Hot runner (1 hot tip with shut-off valve direct on part)
Slider(s) / Lifter(s)	No
Max. surface temperature	250°C
Part size	90 x 90 x 20 mm
Part volume	30 cm^3
Grained area	No
Gloss area	Yes
Nominal thickness	2.5 mm
Minimum thickness	2 mm
Known material(s)	ABS/PC; PC; PMMA; ASA; ABS
Maximum fiber rate	0%
Average cycle time	35 s
Technical interest(s)	Aesthetic
	Laser texturing (holograms)
	High gloss (cavities treated with Balitherm® Primeform from Oerlikon Balzers)



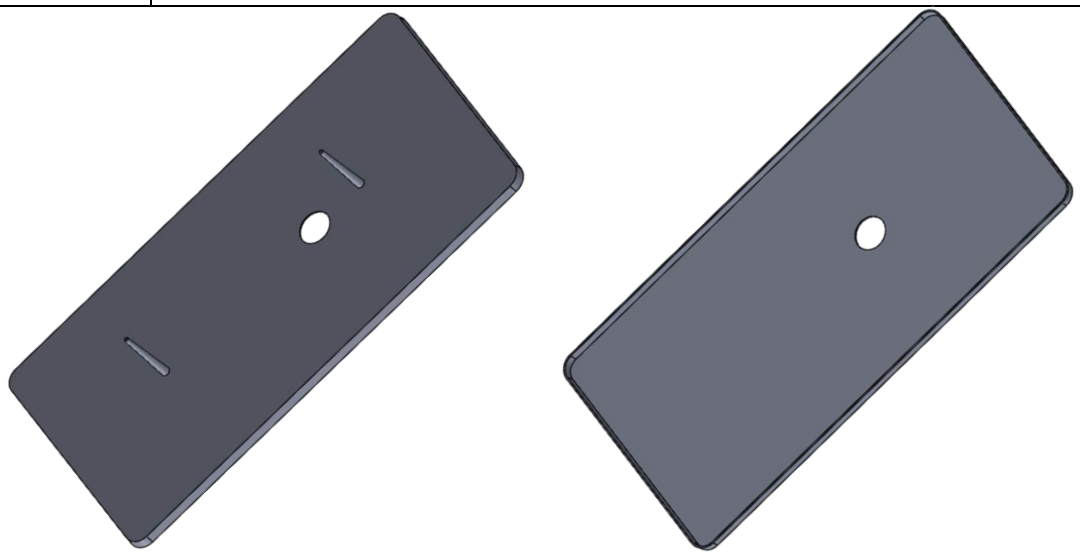


INJ_18 / INJ_19 / INJ_20 / INJ_21 / INJ_22	PLAQUE 2K
Technology	3iTech®
Heating	1 side
Max. usable power	50 kW
Mold size	446 x 496 x 326 mm
Mold weight	565 kg
Number of cavities	1 (thickness 3.0 mm) + 1 (thickness 4.5 mm)
Number of gates	1 gate / 2 gates / fan gate (interchangeable inserts)
Type of injection	Cold
Slider(s) / Lifter(s)	No
Max. surface temperature	250°C
Part size	150 x 100 x 3.0 mm / 150 x 100 x 4.5 mm
Part volume	45 cm^3 / 67.5 cm^3
Grained area	Yes
Gloss area	Yes
Nominal thickness	3.0 mm / 4.5 mm
Minimum thickness	0.6 mm
Known material(s)	ABS/PC; PC; ASA; ABS
Maximum fiber rate	20%
Average cycle time	40 s
Technical interest(s)	Interchangeable plates (low gloss / high gloss / laser texturing / holograms...)
	Interchangeable gate inserts
	Interchangeable pins (hole / no hole / thickness reduction)
	Manual over molding



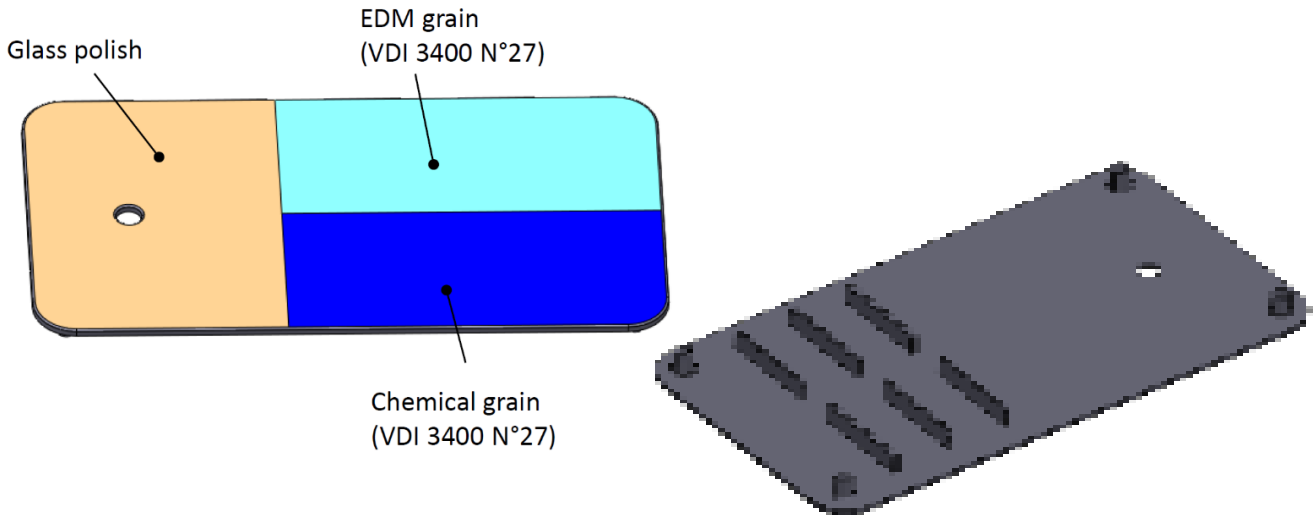
Cavity insert for INJ_18 and INJ_20	PLAQUE 2K – "HD Plaque"
Technology	3iTech®
Heating	1 side
Max. usable power	50 kW
Mold size	446 x 496 x 326 mm
Mold weight	565 kg
Number of cavities	1 (thickness 3.0 mm)
Number of gates	1 (fan gate)
Type of injection	Cold
Slider(s) / Lifter(s)	No
Max. surface temperature	250°C
Part size	150 x 100 x 3 mm
Part volume	45 cm^3
Grained area	Yes
Gloss area	Yes
Nominal thickness	3.0 mm
Minimum thickness	3.0 mm
Known material(s)	ABS/PC; PC; ASA; ABS; SAN; PMMA
Maximum fiber rate	20%
Average cycle time	40 s
Technical interest(s)	High gloss
	Low gloss: 3 textures (VDI 18 / VDI 22 / VDI 27) made by 3 etching technologies (Laser/ EDM / Chemical)
	Nano texturing
	Weld line (hole)

ROCTOOL INJECTION MOLDS FOR TRIALS



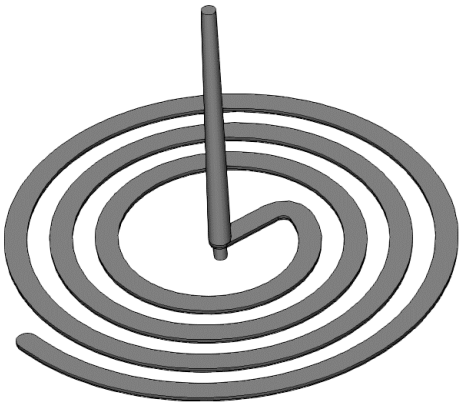
INJ_23	INNOTOOL 3C
Technology	3iTech®
Heating	2 sides
Max. usable power	70 kW
Mold size	346 x 396 x 437 mm
Mold weight	410 kg
Number of cavities	2 sets of cavities: • 1st set made of 1.2343 steel • 2nd set made of high thermal conductivity steel]
Number of gates	1 or 2
Type of injection	Hot runner (2 hot tips with shut-off valves direct on part)
Slider(s) / Lifter(s)	No
Max. surface temperature	250°C
Part size	150 x 80 x 3 mm
Part volume	6.5 cm^3
Grained area	No
Gloss area	No
Nominal thickness	0.5 mm (1st set) / 0.7 mm (2nd set)
Minimum thickness	0.5 mm (1st set) / 0.7 mm (2nd set)
Known material(s)	ABS/PC; PC; PP; SAN; ABS
Maximum fiber rate	50%
Average cycle time	50 s (1st set) / 35 s (2nd set)
Technical interest(s)	Thin wall
	Hot tip selection / Gate selection
	One hole between the two gates
	Cycle time improvement with high thermal conductivity steel
	Vacuum assist option

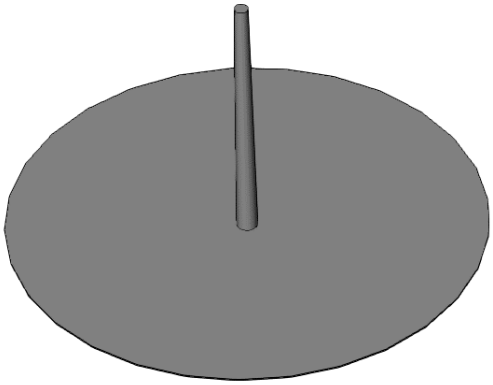
ROCTOOL INJECTION MOLDS FOR TRIALS



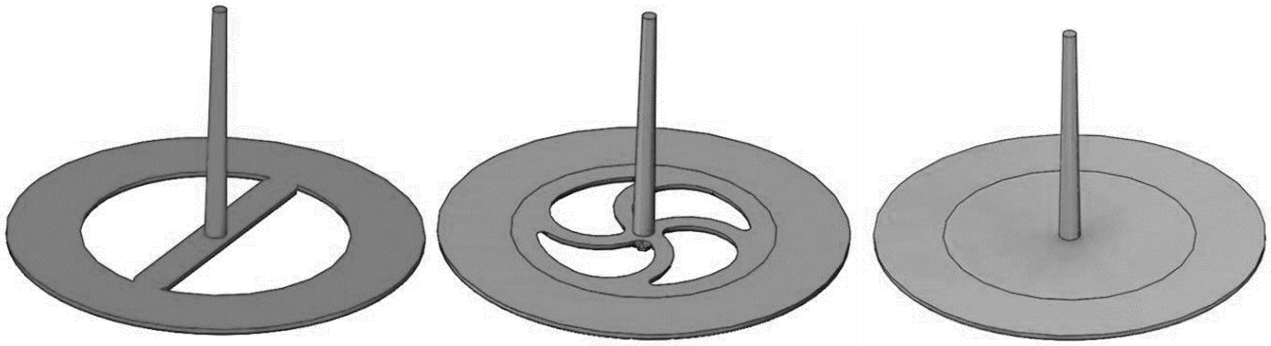
INJ_24	INNOTOOL AUTO
Technology	3iTech®
Heating	2 sides
Max. usable power	82 kW
Mold size	346 x 396 x 467 mm
Mold weight	460 kg
Number of cavities	1
Number of gates	1 or 2 fan gates
Type of injection	Hot runner (2 hot tips with shut-off valves on runners)
Slider(s) / Lifter(s)	No
Max. surface temperature	250°C
Part size	80 x 150 x 7 mm
Part volume	23 cm^3
Grained area	Yes (chemical grain & EDM grain)
Gloss area	Yes
Nominal thickness	1.8 mm
Minimum thickness	1.8 mm
Known material(s)	ABS/PC; PC; ASA; ABS; PA6; PP
Maximum fiber rate	30%
Average cycle time	40 s
Technical interest(s)	Grained & glossy areas
	Hot tip selection / Gate selection
	RJG sensors (eDART): 1 temperature, 2 pressures
	Ribs and bosses (various sizes)
	Weld lines

ROCTOOL INJECTION MOLDS FOR TRIALS

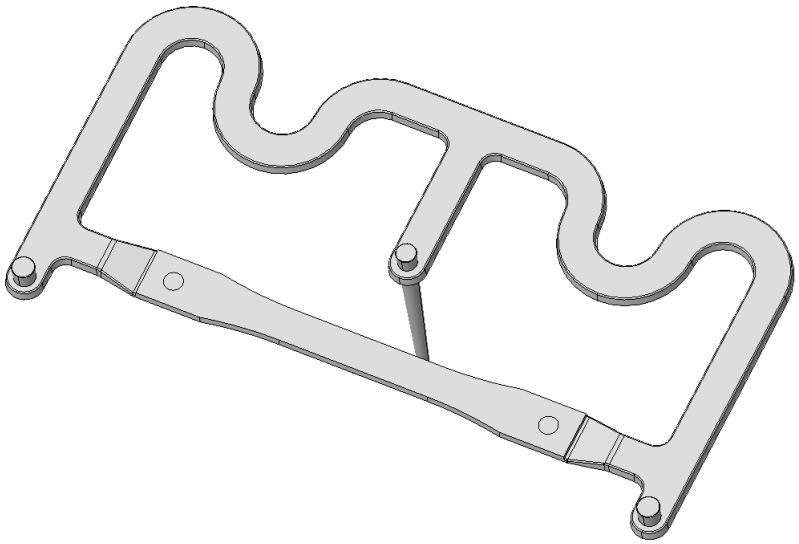




INJ_27 / INJ_30	ZEBULON
Technology	3iTech®
Heating	2 sides
Max. usable power	85 kW
Mold size	316 x 346 x 322 mm
Mold weight	275 kg
Number of cavities	1 [2 versions: Disc or Spiral]
Number of gates	1
Type of injection	Cold
Slider(s) / Lifter(s)	No
Max. surface temperature	300°C
Part size	Disc: Ø135 mm - Thickness: 0.5 mm / 1.0 mm / 1.5 mm
	Spiral: 1000 x 6 mm - Thickness: 1.0 mm / 1.5 mm
Part volume	Disc: 8.74 cm^3 / 15.86 cm^3 / 22.97 cm^3
	Spiral: 7.3 cm^3 / 10.1 cm^3
Grained area	No
Gloss area	No
Nominal thickness	0.5 mm [Disc only] / 1.0 mm / 1.5 mm
Minimum thickness	0.5 mm [Disc only] / 1.0 mm / 1.5 mm
Known material(s)	ABS/PC; PC; PP; ABS; PA
Maximum fiber rate	50%
Average cycle time	-
Technical interest(s)	Version selection: Disc or Spiral
	Thickness selection: 0.5 mm [Disc only] / 1.0 mm / 1.5 mm
	Measurement of flow increase
	RJG sensors (eDART): 2 pressures
	Measurement of pressure drop in mold

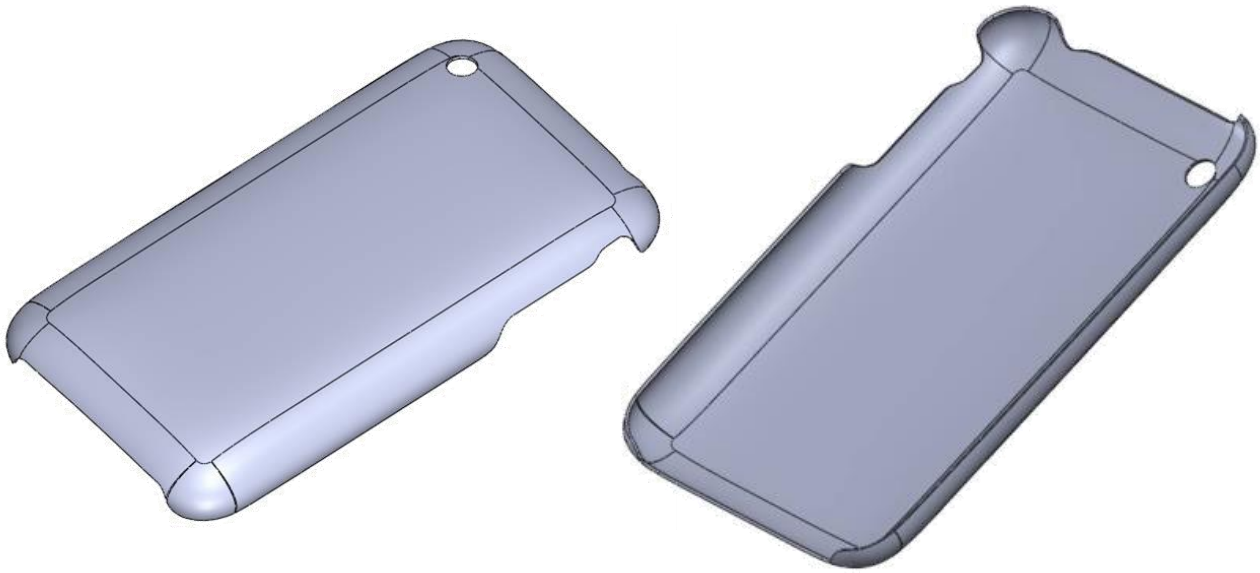


Core insert for INJ_27	ZEBULON – Ring
Technology	3iTech®
Heating	2 sides
Max. usable power	85 kW
Mold size	316 x 346 x 322 mm
Mold weight	275 kg
Number of cavities	1
Number of gates	1
Type of injection	Cold
Slider(s) / Lifter(s)	No
Max. surface temperature	300°C
Part size	Ø mm [ext] / Ø mm [int] x 2 mm
Part volume	2 gates (opposite): 19.3 cm^3
	Elliptic gates: 23.5 cm^3
	Fan gate: 22.6 cm^3
Grained area	No
Gloss area	No
Nominal thickness	2 mm
Minimum thickness	2 mm
Known material(s)	ABS/PC; PC; PP; ABS; PA
Maximum fiber rate	50%
Average cycle time	-
Technical interest(s)	Multiple gate selection: 2 gates (opposite) / Elliptic gates / Fan gate
	Weld lines



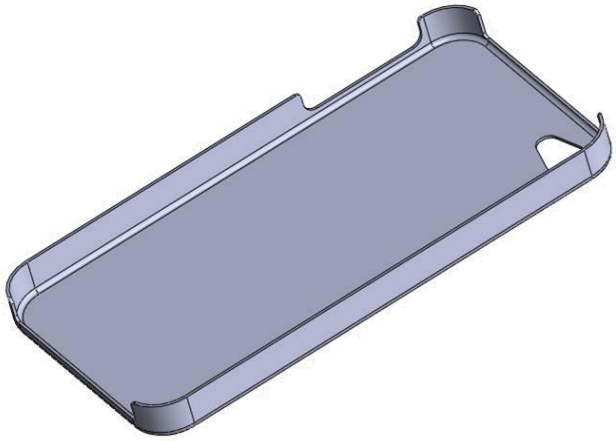
INJ_31	SPECIMEN V2
Technology	3iTech®
Heating	2 sides
Max. usable power	100 kW
Mold size	600 x 400 x 330 mm
Mold weight	457 kg
Number of cavities	1
Number of gates	1
Type of injection	Cold
Slider(s) / Lifter(s)	No
Max. surface temperature	300°C
Part size	165 x 13 x 2.8 mm
Part volume	45.4 cm^3
Grained area	No
Gloss area	No
Nominal thickness	2.8 mm
Minimum thickness	2.8 mm
Known material(s)	ABS/PC; PC; PP; ABS; PA; PBT
Maximum fiber rate	50%
Average cycle time	-
Technical interest(s)	ASTM D638 Type I
	Weld line strength
	Gate selection (with/without weld line)
	RJG sensors (eDART): 2 pressures

ROCTOOL COMPOSITES MOLDS FOR TRIALS



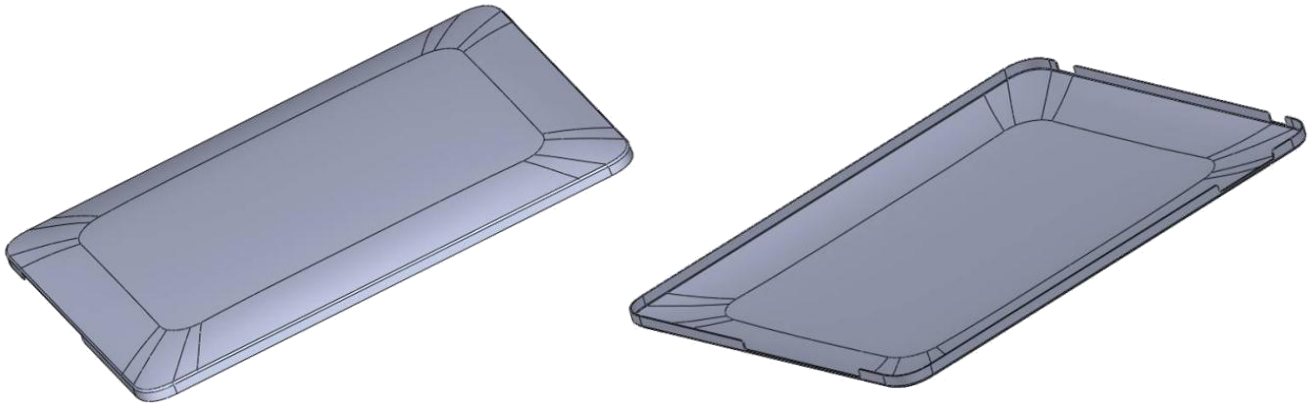
COM_01	iPhone 3
Technology	3iTech®
Heating	1 side
Max. usable power	50 kW
Mold size	300 x 250 x 335 mm
Mold weight	70 kg
Number of cavities	1
Type of composites process	Compression
Slider(s) / Lifter(s)	No
Max. surface temperature	300°C
Part size	117 x 64 mm
Part weight	9 g
Grained area	No
Gloss area	Yes
Nominal thickness	0.6 mm
Minimum thickness	0.6 mm
Maximum thickness	0.6 mm
Known material(s)	PA / PP / PLA / PMMA / PET
Maximum fiber rate	50 to 60%
Average cycle time	50 up to 160°C -> 2 min
Technical interest(s)	Good deformation
	Grained or Glossy surface
	Slight angle
	Addition of cosmetic layers/fabrics
	Small surface

ROCTOOL COMPOSITES MOLDS FOR TRIALS



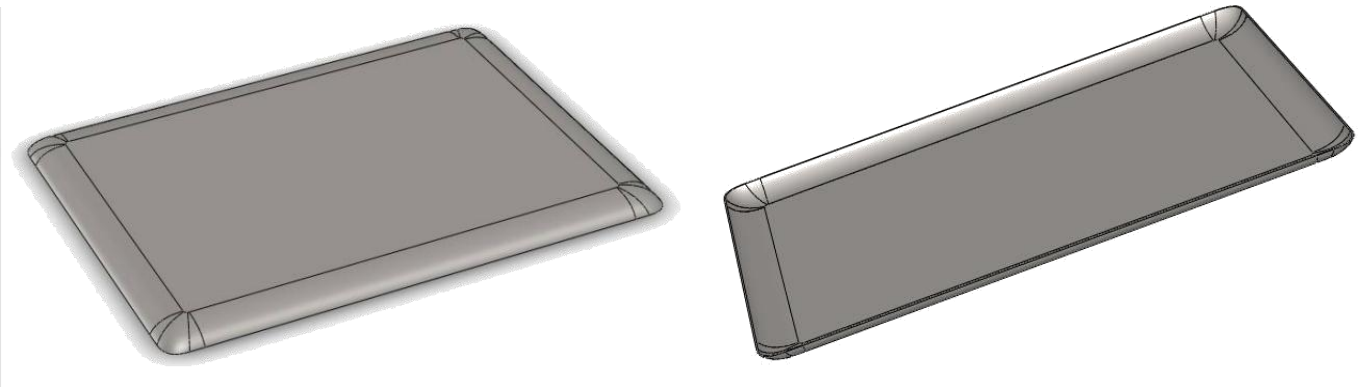
COM_02	iPhone 4
Technology	3iTech®
Heating	1 side
Max. usable power	50 kW
Mold size	300 x 250 x 335 mm
Mold weight	70 kg
Number of cavities	1
Type of composites process	Compression
Slider(s) / Lifter(s)	No
Max. surface temperature	300°C
Part size	117 x 60 mm
Part weight	9 g
Grained area	No
Gloss area	Yes
Nominal thickness	0.6 mm
Minimum thickness	0.6 mm
Maximum thickness	0.6 mm
Known material(s)	PA / PP / PLA / PMMA / PET
Maximum fiber rate	50 to 60%
Average cycle time	50 up to 160°C -> 2 min
Technical interest(s)	Good deformation
	Glossy surface
	Steep angle
	Addition of cosmetic layers/fabrics
	Small surface

ROCTOOL COMPOSITES MOLDS FOR TRIALS



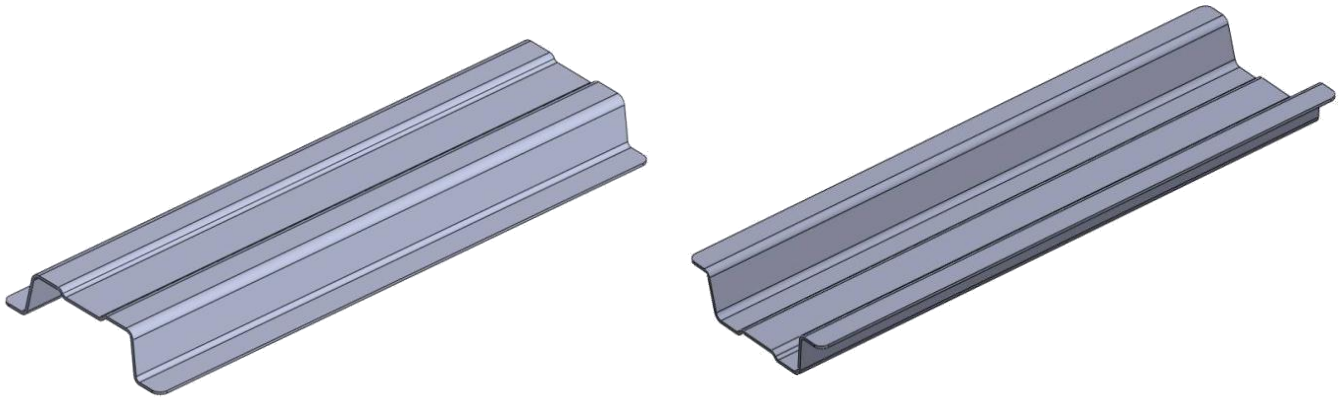
COM_03a & COM_03b	iPad 1
Technology	3iTech®
Heating	1 side
Max. usable power	50 kW
Mold size	500 x 400 x 305 mm
Mold weight	220 kg
Number of cavities	1
Type of composites process	Compression
Slider(s) / Lifter(s)	No
Max. surface temperature	300°C
Part size	244 x 191 mm
Part weight	59 g
Grained area	No
Gloss area	Yes
Nominal thickness	0.6 mm
Minimum thickness	0.6 mm
Maximum thickness	0.6 mm
Known material(s)	PA / PP / PLA / PMMA / PET / PC
Maximum fiber rate	50 to 60%
Average cycle time	50 up to 160°C -> 1.5 min
Technical interest(s)	Good deformation
	Glossy surface
	Steep angle
	Addition of cosmetic layers/fabrics
	Wide and flat surface

ROCTOOL COMPOSITES MOLDS FOR TRIALS

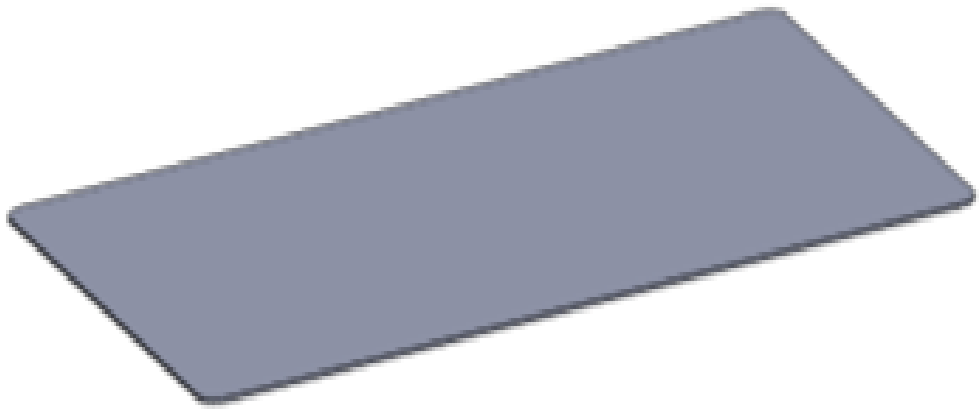


COM_04	iPad 2
Technology	3iTech®
Heating	1 side
Max. usable power	50 kW
Mold size	500 x 500 x 250 mm
Mold weight	190 kg
Number of cavities	1
Type of composites process	Compression
Slider(s) / Lifter(s)	No
Max. surface temperature	300°C
Part size	241 x 186 mm
Part weight	49 g
Grained area	Yes
Gloss area	Yes
Nominal thickness	0.6 mm
Minimum thickness	0.6 mm
Maximum thickness	0.6 mm
Known material(s)	PA / PP / PLA / PMMA / PET / PC
Maximum fiber rate	50 to 60%
Average cycle time	50 up to 160°C -> 1.5 min
Technical interest(s)	Good deformation
	Grained and glossy surface
	Slight angle
	Addition of cosmetic layers/fabrics
	Wide and flat surface
	Wooden or stainless fabrics possible

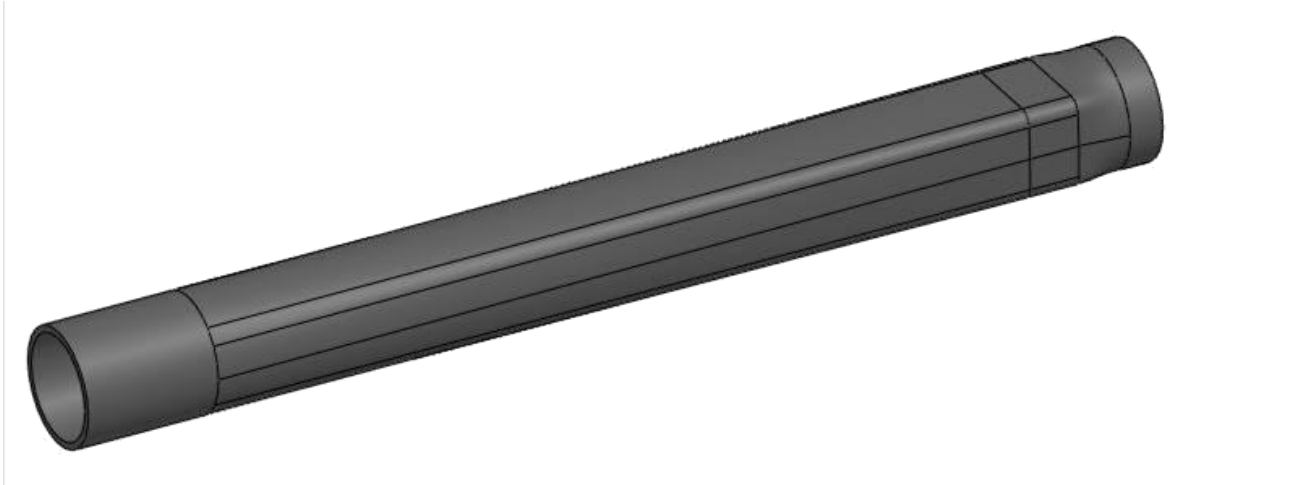
ROCTOOL COMPOSITES MOLDS FOR TRIALS



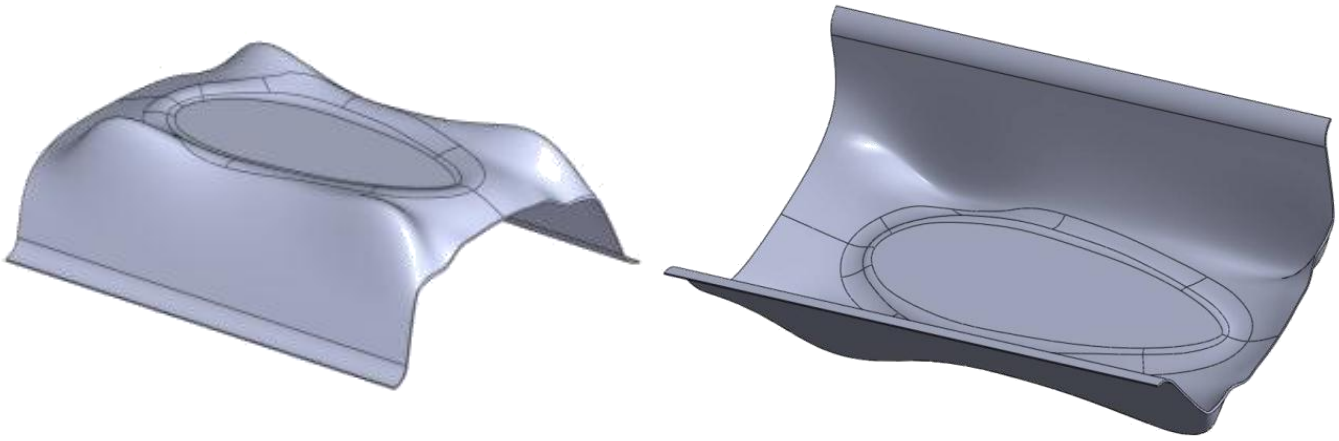
COM_05	R12 RTM
Technology	3iTech®
Heating	2 sides
Max. usable power	2x 100 kW
Mold size	900 x 540 x 350 mm
Mold weight	800 kg
Number of cavities	1
Type of composites process	RTM (Resin Transfer Molding)
Slider(s) / Lifter(s)	No
Max. surface temperature	250°C
Part size	640 x 216 mm
Part weight	1000 g
Grained area	No
Gloss area	Yes
Nominal thickness	3.0 mm
Minimum thickness	3.0 mm
Maximum thickness	3.0 mm
Known material(s)	PU / EP
Maximum fiber rate	50 to 60%
Average cycle time	50 up to 180°C -> 6 min
Technical interest(s)	Fast Resin Transfer Molding High Pressure
	Perfect homogeneity
	Low deformation – Good general tolerance
	Glossy surface
	Deep angle
	Wide and flat surface



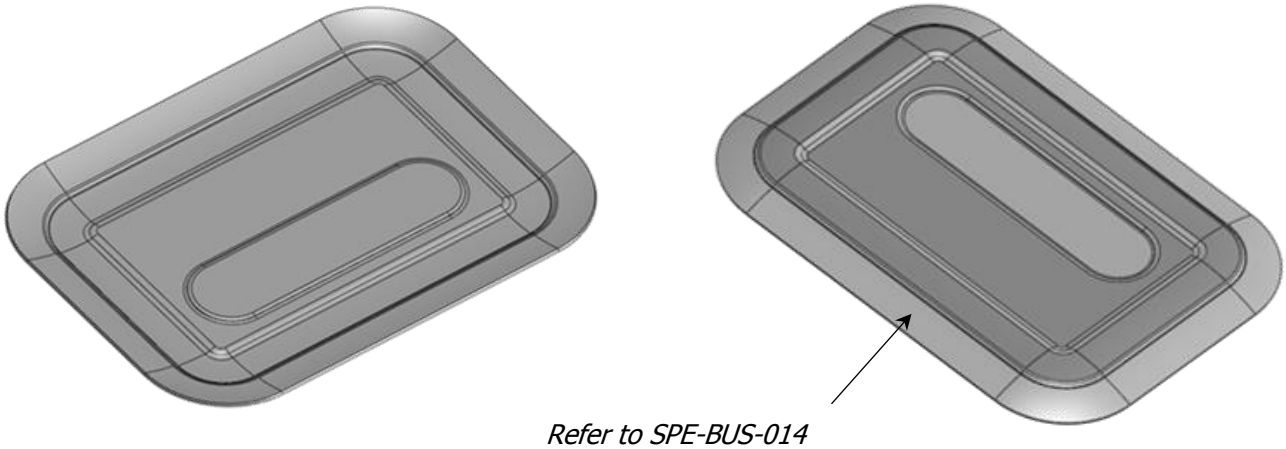
COM_06	IVW2
Technology	3iTech®
Heating	2 sides
Max. usable power	300 kW
Mold size	1060 x 970 x 470 mm
Mold weight	2400 kg
Number of cavities	1
Type of composites process	Compression
Slider(s) / Lifter(s)	No
Max. surface temperature	350°C
Part size	530 x 425 mm
Part weight	900 g at nominal thickness
Grained area	No
Gloss area	Yes
Nominal thickness	1.0 mm
Minimum thickness	1.0 mm
Maximum thickness	10.0 mm
Known material(s)	PP / PLA / PET / EP
Maximum fiber rate	50 to 60%
Average cycle time	60 up to 200°C -> 6 min
Technical interest(s)	Low deformation – Good dimensional specs
	Glossy surface
	Variable thickness
	Wide and flat surface



COM_07	TIN tube
Technology	3iTech®
Heating	1 side
Max. usable power	50 kW
Mold size	1260 x 260 x 375 mm
Mold weight	600 kg
Number of cavities	1
Type of composites process	Compression (inflatable membrane)
Slider(s) / Lifter(s)	No
Max. surface temperature	350°C
Part size	330 x Ø35 mm
Part weight	120 g
Grained area	No
Gloss area	Yes
Nominal thickness	2.0 mm
Minimum thickness	2.0 mm
Maximum thickness	2.0 mm
Known material(s)	PPS / PA12 / EP
Maximum fiber rate	50 to 60%
Average cycle time	60 up to 350°C -> 5 min
Technical interest(s)	Perfect homogeneity
	Low deformation – Good tolerances
	Textured surface
	Circular-to-square shaped tube
	Silicone membrane

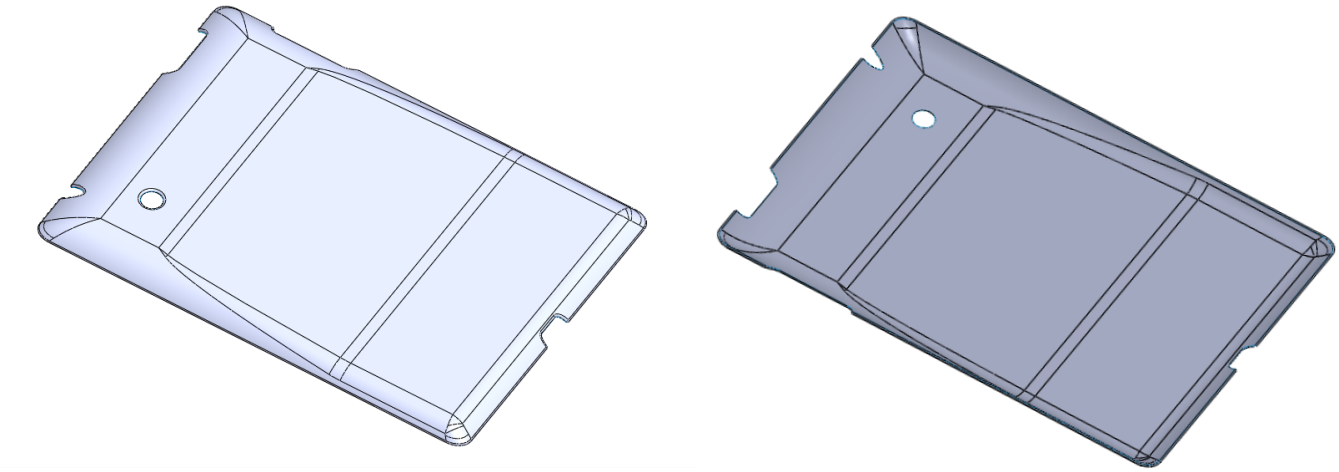


COM_08	PVL – Composite Car
Technology	3iTech®
Heating	1 side
Max. usable power	50 kW
Mold size	350 x 300 x 200 mm
Mold weight	120 kg
Number of cavities	1
Type of composites process	Compression
Slider(s) / Lifter(s)	No
Max. surface temperature	300°C
Part size	235 x 145 mm
Part weight	75 g
Grained area	No
Gloss area	Yes
Nominal thickness	0.8 mm
Minimum thickness	0.8 mm
Maximum thickness	0.8 mm
Known material(s)	PA / PP / PLA / PET
Maximum fiber rate	50 to 60%
Average cycle time	50 up to 160°C -> 2 min
Technical interest(s)	Good deformation - complex geometry
	Glossy surface
	Addition of cosmetic layers/fabrics



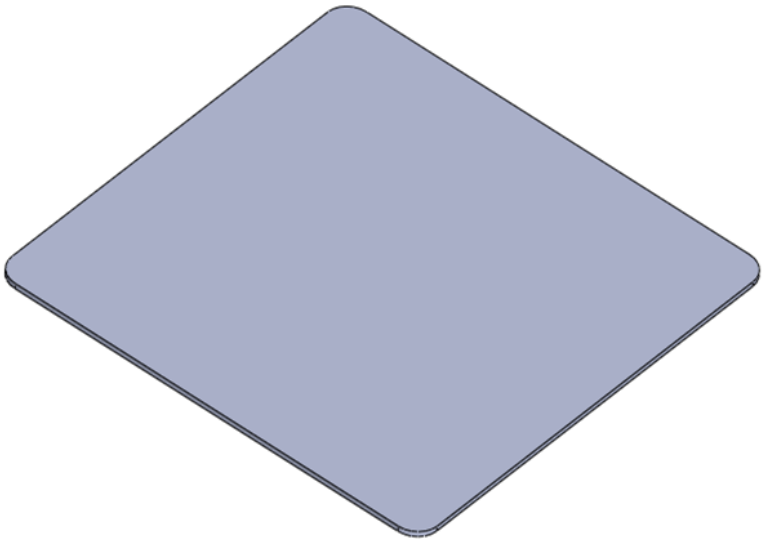
Refer to SPE-BUS-014

COM_09	Hybrid
Technology	3iTech®
Heating	1 side
Max. usable power	100 kW
Mold size	400 x 300 x 225 mm
Mold weight	125 kg
Number of cavities	1
Type of composites process	Compression (part of hybrid)
Slider(s) / Lifter(s)	No
Max. surface temperature	300°C
Part size	169 x 119 mm
Part weight	35 g at nominal thickness
Grained area	No
Gloss area	Yes
Nominal thickness	1.0 mm
Minimum thickness	1.0 mm
Maximum thickness	2.0 mm
Known material(s)	PA / PET / PMMA / PC
Maximum fiber rate	50 to 60%
Average cycle time	50 up to 160°C -> 2 min
Technical interest(s)	Good deformation - complex geometry
	Addition of cosmetic layers/fabrics
	Steel punch is available (with cooling)
	Silicon punch



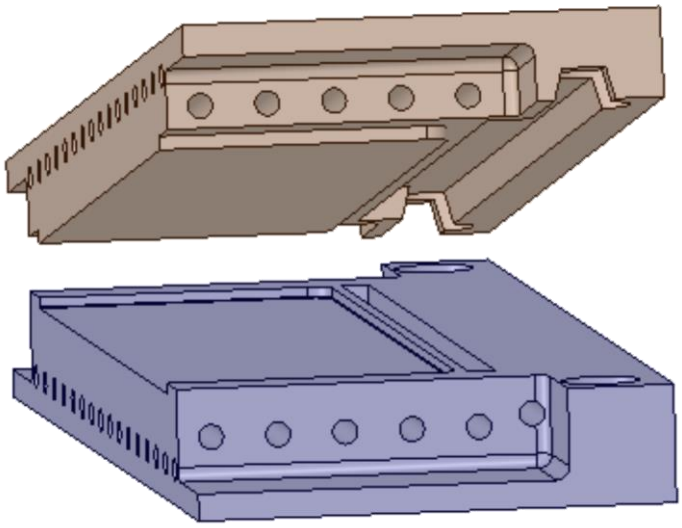
COM_10	JEC-US-12
Technology	3iTech®
Heating	2 sides
Max. usable power	100 kW
Mold size	380 x 450 x 578 mm
Mold weight	500 kg
Number of cavities	1
Type of composites process	Compression
Slider(s) / Lifter(s)	No
Max. surface temperature	350°C
Part size	204 x 148 mm
Part weight	- g
Grained area	Yes
Gloss area	Yes
Nominal thickness	0.85 mm
Minimum thickness	0.85 mm
Maximum thickness	0.85 mm
Known material(s)	PA / PP / PLA / PMMA / PET / PC / PEI / TPU
Maximum fiber rate	50 to 60%
Average cycle time	70 up to 250°C -> 3 min 40 sec
Technical interest(s)	Good deformation
	Glossy & grained surface
	Inside ribs and details
	Small surface

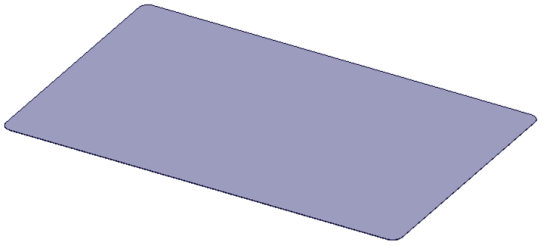
ROCTOOL COMPOSITES MOLDS FOR TRIALS



COM_11	Plate Mold
Technology	3iTech®
Heating	2 sides
Max. usable power	200 kW
Mold size	760 x 740 x 318 mm
Mold weight	1100 kg
Number of cavities	1
Type of composites process	Compression
Slider(s) / Lifter(s)	No
Max. surface temperature	430°C
Part size	400 x 400 mm
Part weight	Material and thickness dependent
Grained area	No
Gloss area	No
Nominal thickness	1.0 mm
Minimum thickness	0.5 mm
Maximum thickness	8.0 mm
Known material(s)	PA / PP / PLA / PMMA / PET / PPS / PEEK / PEKK
Maximum fiber rate	50 to 60%
Average cycle time	40°C / min
Technical interest(s)	Temperature up to 430°C
	Wide range of thicknesses
	Flat surface

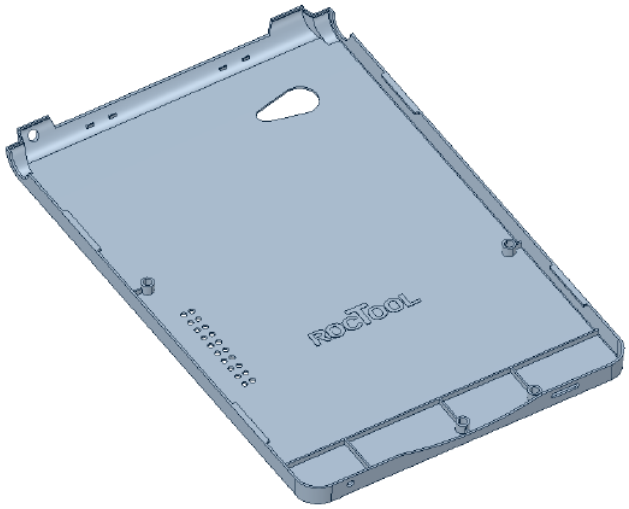
ROCTOOL COMPOSITES MOLDS FOR TRIALS

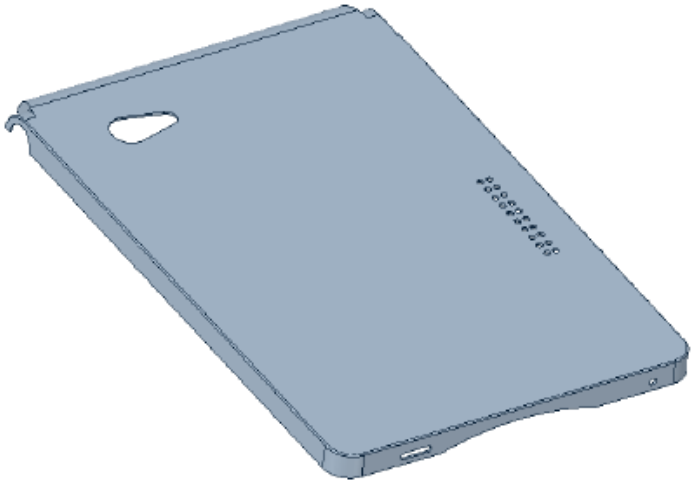




COM_12	TC3 Plate Mold
Technology	3iTech®
Heating	2 sides
Max. usable power	200 kW
Mold size	601 x 428 x 273 mm
Mold weight	390 kg
Number of cavities	1
Type of composites process	Compression
Slider(s) / Lifter(s)	No
Max. surface temperature	400°C
Part size	404 x 250 mm
Part weight	Material and thickness dependent
Grained area	No
Gloss area	No
Nominal thickness	2.0 mm
Minimum thickness	1.0 mm
Maximum thickness	10.0 mm
Known material(s)	PA / PET / PC-ABS
Maximum fiber rate	50 to 60%
Average cycle time	80 up to 400°C -> 1.5 min
Technical interest(s)	Flat part to cut mechanical testing specimen
	Variable thickness
	High temperature

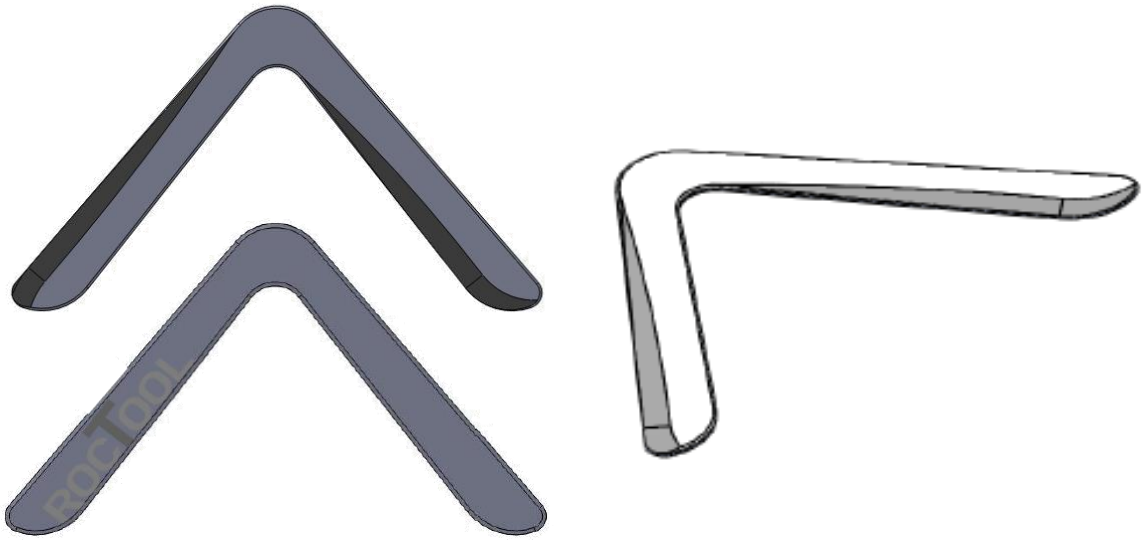
ROCTOOL COMPOSITES MOLDS FOR TRIALS





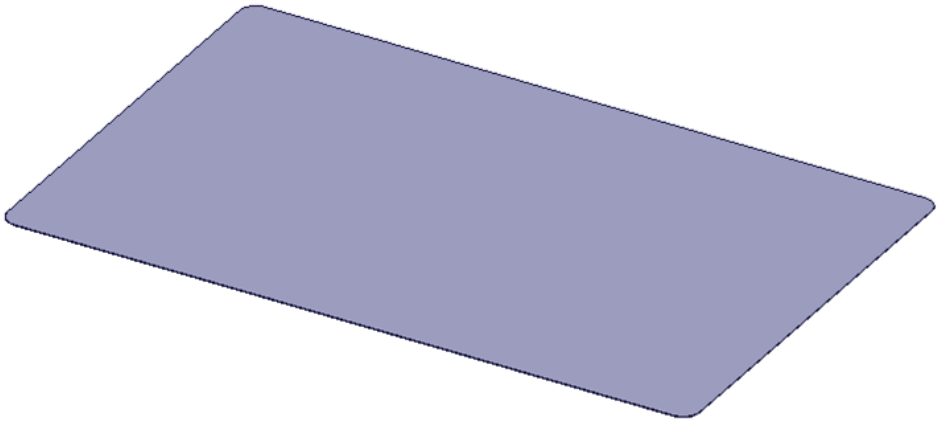
COM-13	RocTab
Technology	3iTech®
Heating	2 sides
Max. usable power	100 kW
Mold size	-
Mold weight	1300 kg
Number of cavities	1
Type of composites process	Compression
Slider(s) / Lifter(s)	Yes
Max. surface temperature	250°C
Part size	185.6 x 121.5 x 7.85 mm
Part weight	35.5 g
Grained area	No
Gloss area	No
Nominal thickness	0.76 mm
Minimum thickness	0.76 mm
Maximum thickness	0.76 mm
Known material(s)	PA / PP / PMMA / PET / PC-ABS
Maximum fiber rate	50 to 60%
Average cycle time	70 up to 200°C -> 70 sec
Technical interest(s)	Grooves/ribs 2.0mm deep – Bosses 3.5mm high
	Multiple undercuts 2.13 mm wide
	Shear edges and 3° draft angle

ROCTOOL COMPOSITES MOLDS FOR TRIALS

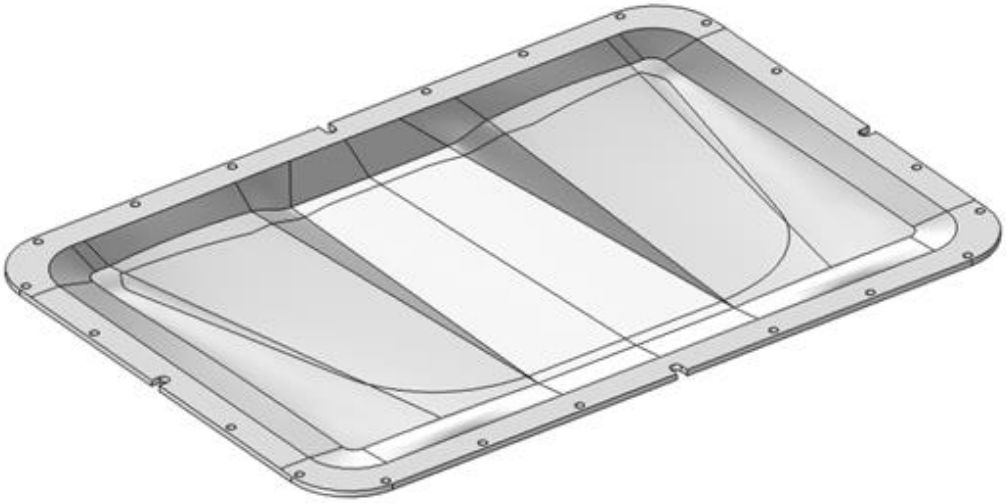


COM-14	Boomerang
Technology	3iTech®
Heating	2 sides
Max. usable power	2x 50 kW
Mold size	480 x 405 x 440 mm
Mold weight	430 kg
Number of cavities	1
Type of composites process	Compression
Slider(s) / Lifter(s)	No
Max. surface temperature	300°C
Part size	270 x 135 mm
Part weight	Material and thickness dependent
Grained area	No
Gloss area	Yes
Nominal thickness	2.5 mm
Minimum thickness	1.2 mm
Maximum thickness	4.0 mm
Known material(s)	PA / PP / PET / PC / TPU
Maximum fiber rate	50 to 60%
Average cycle time	70 up to 220°C -> 2.5 min
Technical interest(s)	Variable thickness
	2 heating sides
	Glossy surface

ROCTOOL COMPOSITES MOLDS FOR TRIALS

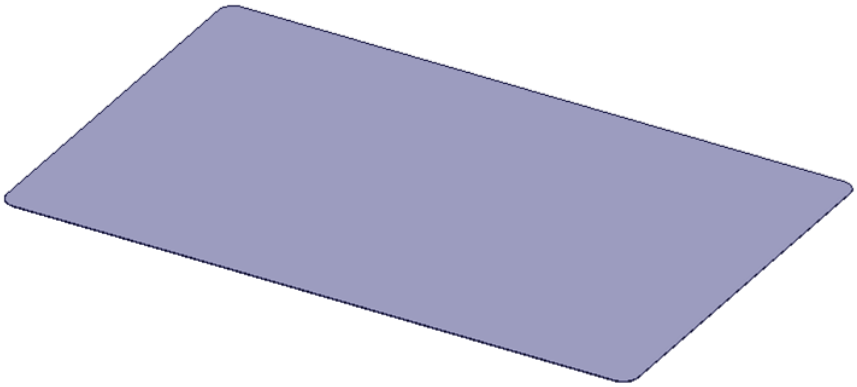


COM_15	TC3 Plate Mold
Technology	3iTech®
Heating	2 sides
Max. usable power	2x 50 kW
Mold size	520 x 380 x 600 mm
Mold weight	-
Number of cavities	1
Type of composites process	Compression
Slider(s) / Lifter(s)	No
Max. surface temperature	300°C
Part size	320 x 220 mm
Part weight	Material and thickness dependent
Grained area	No
Gloss area	Yes
Nominal thickness	0.7 mm
Minimum thickness	0.7 mm
Maximum thickness	2.0 mm
Known material(s)	-
Maximum fiber rate	50 to 60%
Average cycle time	70 up to 200°C -> 2 min
Technical interest(s)	High temperatures
	Wide range of thicknesses
	Shear edge



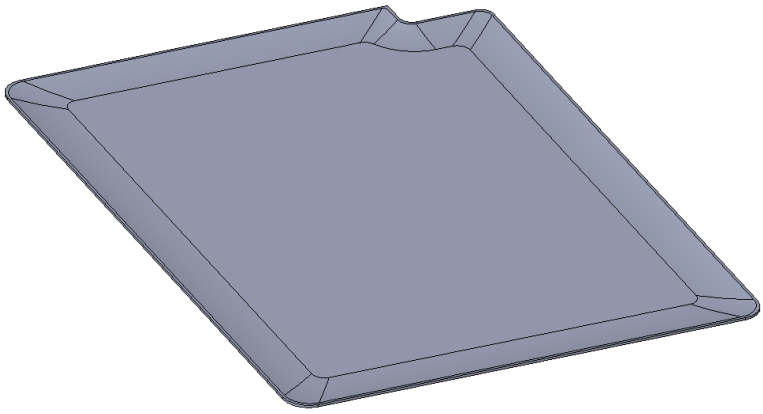
COM_16	Hood LIT
Technology	3iTech®
Heating	1 side
Max. usable power	2x 100 kW
Mold size	960 x 660 x 20 mm (without its support)
Mold weight	120 kg (without its support)
Number of cavities	1
Type of composites process	LIT (Light Induction Tooling)
Slider(s) / Lifter(s)	No
Max. surface temperature	250°C
Part size	745 x 450 mm
Part weight	Thickness dependent
Grained area	No
Gloss area	Yes
Nominal thickness	1.0 mm
Minimum thickness	0.5 mm
Maximum thickness	3.0 mm
Known material(s)	PA / PP
Maximum fiber rate	50 to 60%
Average cycle time	70 up to 160°C -> 44 sec
Technical interest(s)	Large part
	Wide range of thickness
	Variable thickness and metal inclusions possible

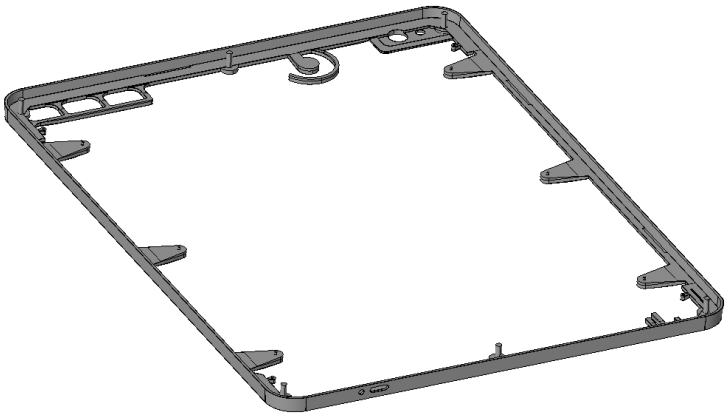
ROCTOOL COMPOSITES MOLDS FOR TRIALS



COM_17	Sabic Compression
Technology	3iTech®
Heating	2 sides
Max. usable power	2x 150 kW
Mold size	862 x 416 x 753 mm
Mold weight	2000 kg
Number of cavities	1
Type of composites process	Compression
Slider(s) / Lifter(s)	No
Max. surface temperature	350°C
Part size	350 x 350 mm
Part weight	Material and thickness dependent
Grained area	No
Gloss area	No
Nominal thickness	2.0 mm
Minimum thickness	1.0 mm
Maximum thickness	10.0 mm
Known material(s)	PEI
Maximum fiber rate	50 to 60%
Average cycle time	80 up to 260°C -> 60 sec(1) or 100s(2)
Technical interest(s)	Wide range of thickness
	High temperature capacity
	-

ROCTOOL COMPOSITES MOLDS FOR TRIALS





COM_18	Sabic Hybrid (Compression)
Technology	3iTech®
Heating	2 sides
Max. usable power	2x 100 kW
Mold size	700 x 630 x 400 mm
Mold weight	1250 kg
Number of cavities	1
Type of composites process	Compression (part of hybrid)
Slider(s) / Lifter(s)	No
Max. surface temperature	260°C
Part size	260 x 200 x 2.5 mm
Part weight	220 g
Grained area	No
Gloss area	No
Nominal thickness	1.0 mm
Minimum thickness	1.0 mm
Maximum thickness	1.0 mm
Known material(s)	PC
Maximum fiber rate	20%
Average cycle time	80 up to 260°C -> 60 sec
Technical interest(s)	Tablet size with large flat part
	Possibility to further inject with 3D details
	-