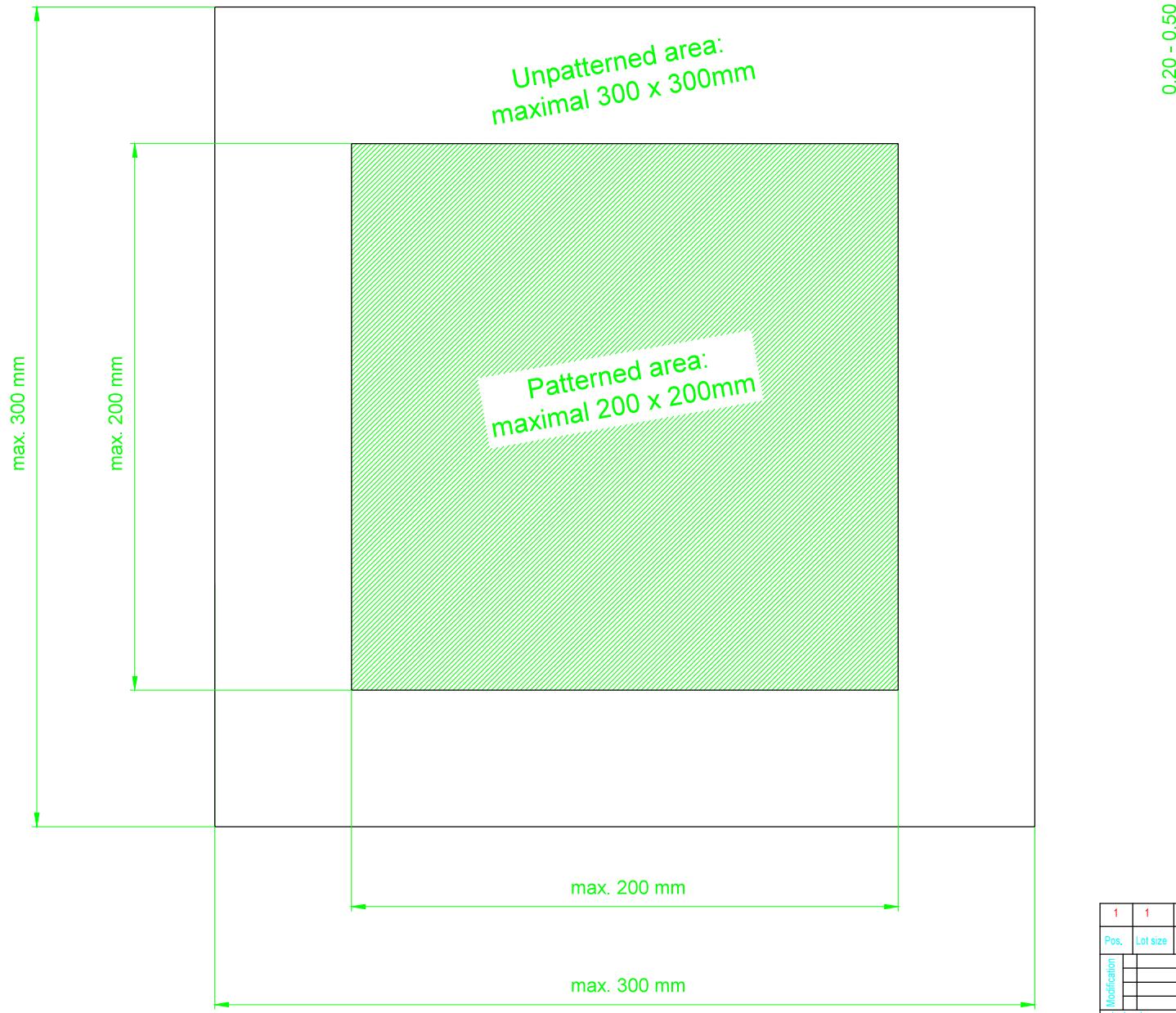


Roller-embossing shims: Specifications

- Pattern size range > 70nm
- Pattern height / uniformity = 50nm - 50µm / 3 – 5 %
- Manufacturing according to adapted LiGA-process
- Multilevel pattern available (micro+nano)
- Alignment-precision level-to-level $\leq 3\mu\text{m}$
- Alignment-precision micropattern to machined features $\leq 20\mu\text{m}$
- Shim thickness: 0.25 – 0.5mm
- Maximal shim dimensions = 300 x 300mm
- Maximal patterned area = 200 x 200mm
- Parallelism Frontside-to-backside $\leq 10\mu\text{m}$ (Backside surface grinded)
- Robust handling
- Ready-to-use shims according to customer drawing
- Contour wire-electrodischarge machined (tolerance = +/-10µm)
- Compatibility to diamond milling
- Available antisticking-coating (fluoro-based)
- Available wear-protection coating (e.g. TiN)
- Compatibility to most patterning methods:
 - e-beam resists (PMMA, HSQ)
 - XIL- resists
 - UV-lithography positive resists, SU-8
 - Hot-embossed polymers, Thermal imprinting,...



1	1	pcs	Nickel (300 x 300 x 0.25mm)		Roller embossing Shim / electroformed Nickel			
Pos.	Lot size	unit	Material		Denomination / Characteristics			
Modification			Modification	Material	Created	06. March 2020	R. Bischofberger	Scale
					Checked	06. March 2020		
					Norms checked			
					Approved	06. March 2020	R. Bischofberger	
w/o drawing					Project #			
Drawing with identical #					Origin	06. March 2020	Total sheets	Sheet #
Drawing with alternat. #			Sach-Nr.		Replacement for	new	1	1
(c) 2020 microSWISS			Identification			Drawing identification		
			Roller-embossing shim			Roll-embossing shim_06-03-2020		