

A&B DIE CASTING COMPANY, INC. | CASTING GRADE, FINISHING GRADE COSMETIC REQUIREMENTS MATRIX

ALLOWABLE LEVEL OF DEFECT OR FEATURE	CASTING GRADE	1 - Utility Grade			2 - Functional Grade			3 - Commercial Grade			4 - Consumer Grade			Critical Sealing Surfaces		
	FINISH LEVEL	C	B	A	C	B	A	C	B	A	C	B	A	C	B	A
	Sharps	ALLOWED	N/A	N/A	ALLOWED	REMOVE	REMOVE	REMOVE	REMOVE	REMOVE	REMOVE	REMOVE	REMOVE	REMOVE	N/A	N/A
Porosity, Surface	ALLOWED	N/A	N/A	≤ .020"	≤ .020"	≤ .020"	≤ .020"	≤ .020"	≤ .020"	≤ .020"	≤ .020"	≤ .020"	≤ .020" *	N/A	N/A	REMOVE
Porosity, Gate	ALLOWED	N/A	N/A	≤ .040"	≤ .040"	≤ .040"	≤ .030"	≤ .030"	≤ .030"	≤ .020"	≤ .020"	≤ .020"	≤ .020" *	N/A	N/A	REMOVE
P/L Break-in	ALLOWED	N/A	N/A	≤ .030"	≤ .030"	≤ .030"	≤ .030"	≤ .030"	≤ .030"	NONE *	NONE *	NONE *	N/A	N/A	REMOVE	
Cold Shut	ALLOWED	N/A	N/A	≤ .25"x .25"	≤ .1"x.25"	NONE *	≤ .25"x .25"	≤ .1"x.25"	NONE *	≤ .12"x.12"	≤ .06"x.06"	NONE *	N/A	N/A	REMOVE	
Heat Checking	ALLOWED	N/A	N/A	ALLOWED	ALLOWED	ALLOWED	ALLOWED	ALLOWED	ALLOWED	REMOVE	REMOVE	REMOVE	N/A	N/A	REMOVE	
Drag Marks	ALLOWED	N/A	N/A	ALLOWED	ALLOWED	ALLOWED	ALLOWED	ALLOWED	REMOVE	REMOVE	REMOVE	NONE *	N/A	N/A	REMOVE	
Sinks	ALLOWED	N/A	N/A	ALLOWED	ALLOWED	ALLOWED	ALLOWED	ALLOWED	NONE	NONE	NONE	NONE	N/A	N/A	REMOVE	
Protrusions	ALLOWED	N/A	N/A	ALLOWED	ALLOWED	ALLOWED	ALLOWED	ALLOWED	NONE *	NONE *	NONE *	NONE *	N/A	N/A	REMOVE	
Cracks	ALLOWED	N/A	N/A	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	N/A	N/A	REMOVE	
Staining	ALLOWED	N/A	N/A	ALLOWED	ALLOWED	ALLOWED	ALLOWED	NONE *	NONE *	NONE *	NONE *	NONE *	N/A	N/A	REMOVE	
Scratches	ALLOWED	N/A	N/A	ALLOWED	ALLOWED	ALLOWED	ALLOWED	NONE *	NONE *	NONE *	NONE *	NONE *	N/A	N/A	REMOVE	
Gates, Overflows	≤ .030"	N/A	N/A	≤ .030"	≤ .030"	≤ .030"	≤ .030"	≤ .030"	≤ .030"	≤ .030"	≤ .030"	≤ .030"	≤ .015"	N/A	N/A	REMOVE
P/L Flash, Trimmed	≤ .015"	N/A	N/A	≤ .015"	≤ .015"	≤ .015"	≤ .015"	≤ .015"	≤ .015"	≤ .015"	≤ .015"	≤ .015"	≤ .015"	N/A	N/A	REMOVE
Hole Flash, Trimmed	≤ .010"	N/A	N/A	≤ .010"	≤ .010"	≤ .010"	≤ .010"	≤ .010"	≤ .010"	≤ .010"	≤ .010"	≤ .010"	N/A	N/A	REMOVE	
All Other Flash	ALLOWED	N/A	N/A	≤ .015"	≤ .015"	≤ .015"	≤ .015"	≤ .015"	≤ .015"	NONE *	NONE *	NONE *	N/A	N/A	REMOVE	
Ejector Pin Marks	ALLOWED	N/A	N/A	+0/- .028"	+0/- .028"	+0/- .028"	+0/- .028"	+0/- .028"	+0/- .028"	+0/- .028"	+0/- .028"	+0/- .028"	N/A	N/A	REMOVE	



NOTES:

- 1) * = MUST BE REMOVED, FILLED, OR COVERED BY FINAL FINISH
- 2) Items marked "REMOVE" or "NONE*" negotiated per customer agreement with cost associated
- 3) For uncoated parts, finish grade "C" applies to each casting grade
- 4) Unspecified casting and finish grades default to casting grade "2" and finish grade "C"
- 5) "Critical Sealing Surfaces" applies only to specified areas of parts requiring pressure-tight seals