DieAce™

Drawing, Forming and Flanging Die Material

Any galling or scoring issues?

It's all in the Copper Alloy!

- *A practical replacement die material where coated inserts fail*
- *Excellent wear resistance and lubricity extends die life*
- *Standard DieAce 350 grade, stock sizes available for quick delivery*
- *DieAce TIG weld rods available for die maintenance*
- *Exceptional thermal conductivity*
- *Casting to shape reduces machining time and material cost*
- *DieAce Increases production and lowers maintenance costs*

SANKYO OILLESS Industry (USA) Corp.

www.sankyo-oilless.com

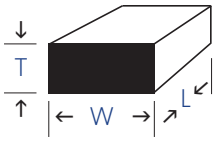
Grade and Features of DieAce

Stock Sizes

DieAce™ Nominal Stock Sizes						
DieAce™ Grade	MM T	MM W	MM L	Inch T	Inch W	Inch L
SO350	35	110	1000	1.25	4.25	39.25
	55	110	1000	2.00	4.25	39.25
	80	160	1000	3.00	6.25	39.25
	110	210	1000	4.25	8.25	39.25

Note: Nominal size listed. Rough cast size shipped at approx. 10mm (0.40 inch) larger all-around than nominal size. Six face finish machining available upon request.

***** Additional cut charge may apply *****



SO350

Highly hardened which is most suitable for drawing, flanging, and forming stainless or high tensile steel.

*Lower HB hardness DieAce alloys available upon request.

Mechanical Properties

	SO350
Hardness HB	330~340
Elongation %	0.5 or more
Tensile Strength N/mm^2	780 or more

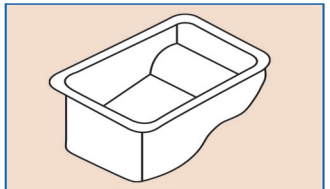
Physical Properties

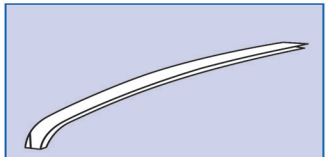
	SO350
Specific Gravity g/cm^3	7.6
Linear coefficient $10^{-5}/°C$	1.70
Thermal Conductivity cal/cm·sec	0.20
Melting Point °C	985~1040
Modulus of Longitudinal Elasticity Gpa	135

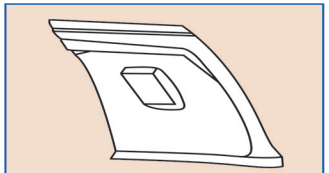
Machining Properties

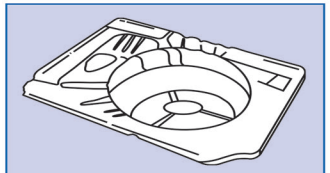
	Cutter	Machining Conditions	
			SO350
Drilling	Carbide Tool	Speed m/min	20~40
		Feed mm/rev	0.10~0.15
Milling	Rough: Ball nose (Carbide Insert)	Speed m/min	70~80
		Feed mm/rev	0.10~0.15
		Cut mm	1.00~2.00
	Finish: Ball nose (Carbide insert)	Speed m/min	150~160
		Feed mm/rev	0.05~0.10
		Cut mm	0.20~0.50
End Milling (side machining)	Rough (Carbide insert)	Speed m/min	20~40
		Feed mm/rev	0.15~0.25
		Cut mm	1.00~2.00
	Finish (Carbide insert)	Speed m/min	20~40
		Feed mm/rev	0.05~0.10
		Cut mm	0.05~0.10
Tapping	Carbide Tool	Speed m/min	1~2
Reaming	High Speed Tool	Speed m/min	1~3
		Feed mm/rev	0.05~0.10

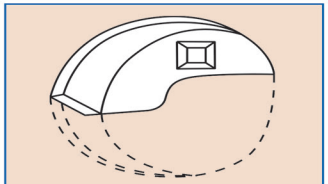
Application Examples

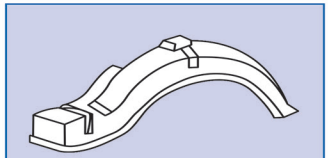

Oil Pan

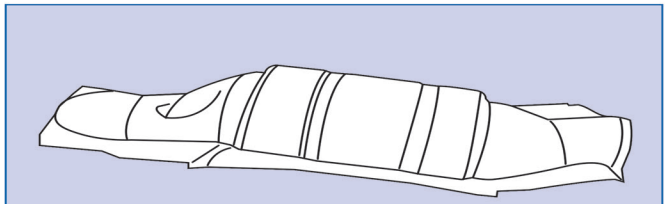

Roof side inner

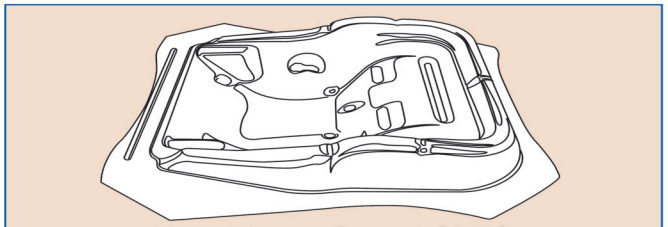

Rear pillar outer

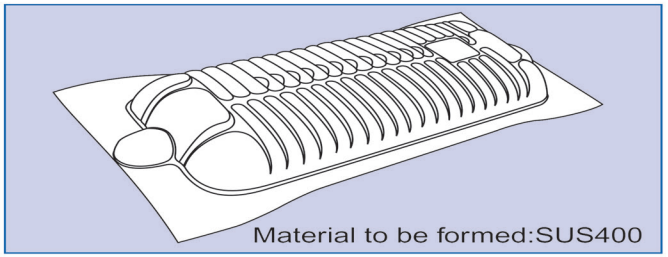

Rear floor


Wheel house(inner)


Wheel house(outer)


Material to be formed:SUS430EM


Material to be formed:SPEC


Material to be formed:SUS400