

ASSMANN WSW extends the product portfolio of die casting process by introducing the State-of-the-Art of SSM - hybrid process which combines advantages of the casting and forging process. Products produced by semi-solid thixotropic alloys have very low air inclusions, high strength and toughness. SEMI SOLID METAL (SSM) aluminum components are also heat treatable, weldable and pressure tight.



U07_GB_HMB_Specifications subject to change without notice

For further information please contact your local sales team.
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Cooling Solutions

ASSMANN
WSW components

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SSM Die-Casting offers

- Reduction or elimination of air inclusion
- Reduction or prevention of shrinkage
- Cast material compositions up to 50 % liquid content and up to 50 % solid content possible
- Spherical molecular structure
- Higher viscosity of liquid aluminum
- Uniform filling process during injection
- More consistent and regular material flow
- Allow for the casting of wide range of alloys
- Improved tooling life

Advantages of SSM Die-Casting

- Production of complex shapes and geometries with excellent dimensional accuracy
- Thin-walled parts possible (alu: 0.5 mm, tin: 0.4 mm)
- Lower porosity / higher strength
- Excellent mechanical performance
- Increased tool durability by lower processing temp.
- Reduced shrinkage
- Smoother surfaces can be better post-treated (surface electroplating)

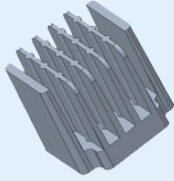
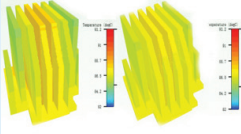
Application examples

Housing & Cover, Consumer market, LED cooling, Cooler for control units, Handheld devices

ASSMANN WSW components GmbH is well known as a worldwide system supplier for standard & customer tailored connectors, cable harnesses, heat sinks and assemblies.

ASSMANN WSW components has more than 50 years of experience within the electromechanical & heat sink market.



		Liquid Casting	SSM Casting
Simulation Test Conditions 	Heatsink size	50x50x50mm	
	Ambient temperature	35°C	
	Source power	10W	
	Material	ADC 12	A356
	Thermal conductivity	96W/mK	159W/mK
	Surface treatment	Clean	Clean
Result 	T_{max}	93.2°C	91.3°C
	ΔT	58.2°C	56.3°C
	R_{ja}	5.82°C/W	5.63°C/W
	Thermal efficiency improvement	N/A	↑ 3.3%
	Tooling charge	N/A	↓ 5.0%
	Unit price	N/A	↓ 3.0%

