

Standard program

Steel – Aluminium Foam
Sandwiches

Metal Foam Center
Chemnitz

valid: 2012



Standard program

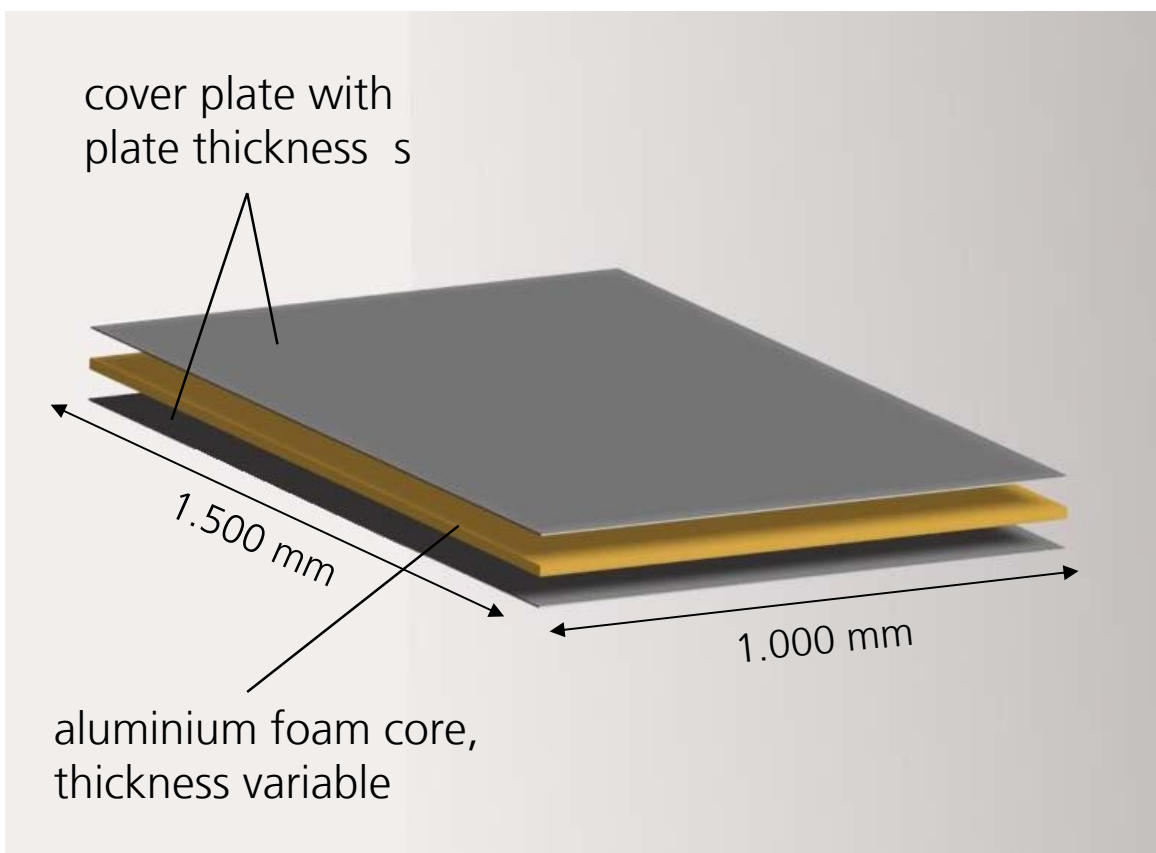
Steel – Aluminium Foam Sandwiches

sheet steel: S235 (St 37)

foam: based on aluminium

length x width: 1.500 mm x 1.000 mm

bond: metallurgical bonding or adhesive connection



Application fields

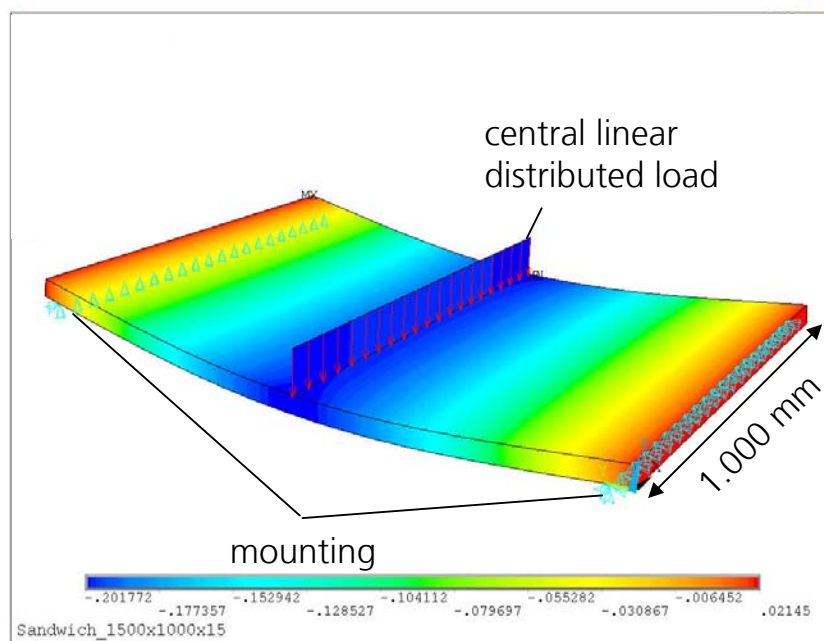
automobile industry	<ul style="list-style-type: none"> car body- knot areas car body- main longitudinal girder
mechanical engineering	fast moved assemblies, assemblies with high damping requirements
building industry	lightweight and load- bearing floor elements / supports
shipbuilding industry	scuttles doors
aviation	floor panels

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Properties

panel dimensions uncut: 1.500 x 1.000 x sandwich thickness [mm³]

sandwich thickness [mm]	sheet metal thickness s [mm]	total weight [kg]	max. deflection by deadweight [mm]	max. comparison by deadweight [N/mm ²]	max. deflection [mm / 1000 N]	max. v. Mises stress [(N/mm ²)/1.000N]	light weight construction- factor LBF = 1/(mass: deflection) · 1000
15	2	58,7	0,523	3,99	1,447	14,7	11,8
20	2	63,9	0,299	3,02	0,759	10,2	20,6
25	2	69,2	0,198	2,48	0,466	8,0	31,1
25	3	90,6	0,195	2,42	0,349	6,4	31,6
30	2	74,4	0,144	2,14	0,314	6,7	42,8
30	3	95,9	0,137	2,03	0,233	5,4	44,8



Results of calculation of a central loaded steel- aluminium foam sandwich with constraints

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Prices

transport excluded

sandwich thickness [mm]	sheet metal thickness [mm]	price per plate ⁽¹⁾ (with an order of one plate) [€]	price per plate ⁽¹⁾ (with an order of five plates) [€]	price per plate ⁽¹⁾ (with an order of ten plates) [€]	price of customizing ⁽²⁾ [€/m]
15	2	810	540	450	16,20
20	2	845	575	485	21,30
25	2	875	610	520	26,00
25	3	895	630	540	27,40
30	2	910	640	550	30,50
30	3	930	660	570	32,00

(1) The material prices are subject to change based on the fluctuation of the market!
Please ask for the current prices!

(2) Besides separating cuts a surrounding cut might be necessary too!

Contact

Fraunhofer Institute for Machine Tools and Forming Technology IWU
Reichenhainer Straße 88
09126 Chemnitz

Dr. Thomas Hipke
Head of the Department Production Systems
Head of the Metal Foam Center
Phone: +49 (0)3 71 / 53 97-14 56
Fax: +49 (0)3 71 / 53 97-17 96
E-Mail: thomas.hipke@iwu.fraunhofer.de
Internet: <http://www.iwu.fhg.de/schaumzentrum/english/index.htm>