

Technical data

CODE:**PRODUCT:**

SCS - STEEL COMPOSITE SHEETS

NOTE:

TECHNICAL DATA

IMAGE:**LAST UPDATE:**

11/2021

STEEL COMPOSITE SHEETS

Based on ECCA-guidelines

composed of: protection foil, anneal lacquering, steel layer 0,3 mm, adhesion, polyethylen core

Sizes	NORM	Tolerance	Unit
Tolerance in length	DIN 16927 / ISO 11833-1	-2 / +2	mm
Tolerance in width	DIN 16927 / ISO 11833-1	-2 / +2	mm
Tolerance in thickness	DIN 16927 / ISO 11833-1	± 0,15	mm
Squareness Maximum difference of diagonal		5	mm
Flatness tolerance (lengthwise and crosswise swelling)	DIN ISO 1101		
a) Specification upright - the sheet is set up on edge	lengthwise equates to cross direction	7 on 3000 3,5 on 1250	mm mm
b) Specification vertical - for warranty of printability: The sheet is flat - evenly on the underground (The sheet may stand highly nowhere more than the demanded tolerance.)	Length and width	1	mm
Straightness tolerance	DIN ISO 1101	0.5/3000	mm
Parallel offset of the aluminium covering layer (Condition is a clean edge trim.) testing tool: according to DIN 16927 / ISO 11833-1 para.: 5.4	in-house	max. 2	mm
Weight ± 200 g/m ²	Steel 0,30 2 mm = 6.100 g/m ² 3 mm = 7.000 g/m ²		
Delivery condition	according to DIN 16927 - para.4.1		

Protection foil:	according to supplier's specification
Brand	
Material	Polyethylen, thickness minimum 50 mm
Thickness of foil	± 5 µm
Colour	transparent
Durability	UV stable for 6 month
Appearance	- adhere on the whole surface without bubbles, folding and rip - during storing no residue of adhesive on the surface of the sheet - Foil may not project at the edges (above and under)
Peeling force test according to DIN 53278	between 0,3 and 0,5 N/cm
Printed production code	With a defined production code on. 20mm high, 20mm from the corner. According enclosed list.

Anneal lacquering (only matt):	according to supplier's specification
Material - Topcoat	Polyester lacquered surface
Material - Backcoat	Polyester lacquered surface
Thickness of Topcoat	20 ± 2 µm
Thickness of Backcoat	20 ± 2 µm
Colour	
Gloss level (angle 60 °) after Gardner :	matt : 20 - 40 ± 10
Lacquer adhesion	lattice cut DIN 53151 (GT0)
Pencil hardnesse	min. F
Delivery condition of the surface (no defects in lacquer coat , i.e. aluminium may not be visible)	according to DIN 16927 - para. 4.1 < 3 defects or spots / m ²
Warranty for weather and light fastness	5 years, according enclosed warranty agreement (not on the edges, drills and cuts)

Steel layer 0,30 mm:	according to supplier's specification
Steel quality	unalloyed steel
Treatment	zinc galvanised
Peeling force test according to DIN 53278	target > 30 N/cm

Adhesive:	according to supplier's specification
Base material	Hot melt adhesive based on PE
Layer thickness	ca. 50 µm
Peeling force test according to DIN 53278	target > 30 N/cm

Polyethylen core:	according to supplier's specification
Material	PE-LD Recycling (to 100%)
Density	0.95 - 0.96 g/cm ³

Check and checking interval:	
See under part Sizes	
all testing has to be checked and reported every 2 hours for each production charge	
Indicated testing has to be checked and reported for each production charge, at the beginning of production and than after every 250 m².	

Storing and packaging:	
Packaging:	
- Type of packaging	palletised
- Packaging unit/pallet	accorign PO-text
- Packaging instruction	according the picture
Storing	
- Storing instruction	<p>Pallets must be stored rain and splash-water protected.</p> <p>Prevention against penetrating humidity and condensation water. (e.g. by not moving cold sheets into a warmer environment)</p> <p>Wet sheets must be dried to avoid spots.</p> <p>Single sheets has to been carried by one person on each side of a pallet.</p> <p>Do not drag sheets across one another. Carry them upright.</p> <p>Wear gloves to avoid leaving marks.</p> <p>Do not stack any more than six pallets on top of one another.</p> <p>(Store heavy sheets underneath and lighter sheets on top)</p>

Identification / Labeling and retraceability:	
Labels with informations about the product, colour, quantity, sizes and charge no. has to be fixed on the front surface and sideways on every pallet.	

Certificates:	
The adherence to the specifications must be guaranteed from the producer.	
Any change must be agreed from both sides of partners.	
The results of the above mentioned position point 8 must be transfered to profine as email to Mr. Frank Memmer, for every delivery, for every charge.	
Profien reserve the right to check the guaranteed properties by themselfe and to refuse delivery if necessary.	

Technical datas:	
Flexural Stiffness	2 700 kNcm ² /m
Flexural Module	25 000 Mpa
Penetrating Strength	26 KN
Shear Strength	76 Mpa
Thermal conduction state d.c. resistance (1/L)	0.008 m ² K/W
Thermal conducting coefficient (U)	5,61 W/m ² K
Temperature durability	-50°C until +85°C
Linear thermal expansion	1,8 mm / m at 100°C temperature difference

Requirement profile for the following processings:

Varnishing of anneal lacquer surfaces

- screen print with water based, UV and solvent inks
- digital printing with UV and solvent inks
- Spray painting and coating (acrylic or two part polyurethane coatings)

Photo and foil lamination

Cutting treatment

- Sawing
- Drilling
- Milling
- Punching
- Bonding
- Printing

Fixing

- Screw
- Gluing
- Clamping and bolting
- Fastened installation

Reference for cleaning

Guideline of the manufacturer

Maintaining reference

Guideline of the manufacturer

Chemical resistance

Guideline of the manufacturer

Safety data sheet:

- by supplier one provides