

FACHGRUPPE
MINERALWERKSTOFFE



Technical Leaflet 01

PRODUCT DATA SHEET SOLID SURFACE MATERIALS (SHEETS AND SHAPED PRODUCTS)

(Juni 2009)

This information describes the structure of solid surface materials and refers to their handling, processing, use and disposal. Solid surface materials are not hazardous substances and therefore do not require special marking or a safety data sheet.

1. Description of Material

1.1 Solid surface materials consist of polymerized monomers and resins; usually polyester and / or acrylic resins, mineral fillers and pigments. This material is manufactured in sheets and shaped products of varying dimensions. The fillers are mainly aluminium trihydrate (ATH). Solid surface materials are homogeneous without voids. The surface is renewable and can be fabricated into continuous surfaces with inconspicuous seams, which allows design flexibility. They are free of internal reinforcing fibers.

1.2 Material Variations

1.2.1 Standard Type

Sheets of solid surface materials of the standard type are suitable for horizontal, vertical, damp and dry applications. For horizontal applications they require a substructure.

1.2.2 Veneer Type

Veneer sheets of solid surface have the same structure as the sheets of the standard type. Due to their thickness, they are normally bonded onto a substrate for both horizontal and vertical applications.

1.2.3 Shaped Products

Shaped products out of solid surface materials allow virtually limitless designs for kitchen, bath and industry.

2. Quality Criteria

Solid surface materials possess the following properties:

- moisture resistance (dry/wet)
- resistance to household chemicals and boiling water
- shock resistance
- ability to be seamed
- can be thermoformed
- aesthetically pleasing
- bacterial and fungal resistant
- color stability
- safe for food contact
- thermal shock resistant
- easy to clean
- resistant to cigarette burns
- surface is renewable

3. Fire Resistance

Solid surface materials are difficult to ignite and have properties that retard flame spread which allow more time for evacuation. They are also available in specific flame retardant qualities. As with any other organic materials, the smoke from burning solid surface materials can be toxic. Fires containing solid surface materials can be extinguished using the same techniques as with building materials containing wood.

4. Transport/Storage

Transportation regulations consider solid surface sheets and shaped products to be non-hazardous cargo. There is no special marking necessary.

5. Handling/Machining

The standard safety instructions regarding dust generation and fire protection must be adhered to when handling and processing solid surface sheets and shaped products.

Manufacturers and installers must comply with both environmental and safety regulations pertinent to the local area.

Solid surface sheets and shaped products are articles and not chemical substances, therefore REACH does not apply.

Nevertheless it is important to ensure an information exchange with the raw material suppliers on REACH relevant substance properties.

6. Disposal

- 6.1 Incineration: It is recommended to dispose of solid surface material by incineration .
- 6.2 Disposal Site: Solid surface materials are environmentally neutral. They can be disposed of at disposal sites according to applicable national and/or regional waste disposal regulations.

7.	Technical Data	
7.1	Physical characteristics:	
7.1.2	Density:	1500 - 1800 kg/m ³
7.1.3	Soluble in water:	No
7.1.4	Hazardous reactions:	None
7.1.5	Environmental concerns such as heavy metals like arsenic, lead, cadmium, chromium VI and mercury and their compounds:	Not detectable
7.1.6	TOC content (Total Organic Carbon)	> 5%
7.1.8	Thermal value	Approx 10.000 KJ/Kg
7.2	Storage, handling and transport:	Solid surface materials are not hazardous cargo.
7.2.1	Safety equipment:	Standard manufacturing regulations apply.
7.2.2	Prevention of fire and explosions:	Not necessary
7.3	Working of solid surface materials :	
7.3.1	Workplaces:	Dust exposure limit: 2 mg/m ³
7.3.2	Protection from explosions:	Dust explosion category ST1 VDI 2263 (similar to wood dust)
7.4	Fire extinguishing measures:	All usual fire fighting measures can be taken.
7.5	Toxic reactions in use:	None. Solid surface materials are non-toxic and approved for use in contact with food.

The details in this data sheet are based on our present state of knowledge and experience. Because of the variety of possible influences in machining and use of these products, manufacturers are not exempt from performing their own inspection and tests. A legally binding warranty of certain properties or the suitability for a certain application can not derive from the data sheet.

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Solid Surface Materials Group

Solid Surface Materials Group within the pro-K was founded in 2003 by the major manufacturers of solid surface material.

For more information regarding the working group and the published technical leaflets please visit www.pro-kunststoff.de and www.mineralwerkstoff.org

or contact the association

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