



*HYGIENE TECHNOLOGIES*  
**HYGIENIC PANELS  
WITH AMB (Antimicrobial)  
SURFACE OPTIONS**

**DECOSER<sup>®</sup>  
ISOBOARD<sup>®</sup>  
GRANITRON<sup>®</sup>  
WITH POLSER AMB**

HYGIENE TECHNOLOGIES

## HYGIENIC PANELS POLSER AMB (Antimicrobial) SURFACE OPTIONS

**Polser AMB** is our antimicrobial polymer upgrade available on most of POLSER company FRP sheets, profiles and associated products.

POLSER AMB the latest technology for protecting the products surface against a broad spectrum of damaging microbes including, bacteria, algae, mold, mildew and fungi by reducing the amount of microbes by 99.999%



### BENEFITS OF DECOSER AMB SURFACES

- The POLSER AMB product is registered and authorised in the EU under the Biocidal Product Regulations and in Turkey by the Turkish Ministry of Health.
- Unique “broad spectrum” kill range.
- POLSER AMB antimicrobial protection treatment provides a permanent non leaching, barrier that actively destroys microorganisms that come into contact with it in a physical manner without creating opportunities for adaptive or resistant strains to form. This means POLSER AMB retains its strength and effectiveness throughout the life of the product and does not harm the environment.
- POLSER AMB treatment does not alter the feel or look of the finished product.
- The finished product is safe, non-toxic and non-hazardous to ship, handle and work on.
- Thermally stable
- POLSER AMB treatment are easy to clean, disinfect and keep hygienic using standard cleaning procedures.
- Does not contain heavy metals
- Does not give off harmful chemicals



## Comparison between POLSER AMB and normal FRP

	AMB	NORMAL FRP/GRP
Resistance to mold, mildew, bacteria	YES	YES
Actively kills microbes on contact	YES	NO
Reduction in chance of cross contamination	YES	NO
Reduction in chance of airborne contamination	YES	NO
Broad spectrum effectiveness on all known bacteria, fungi, algae, yeast and viruses	YES	NONE
Antimicrobial effect lasts lifespan of product	YES	NONE
Microbes can remain on surface to grow, reproduce or die until removed by cleaning or disinfection	NO	YES

So-called “hygienic” products in the market place are sometimes nothing more than products with smooth surfaces or use chemicals of concern that leach potentially toxic materials such as heavy metals, ionic free radicals and PCB into the environment. As they release these materials their strength can be diminished over time and microbes can build up an adaptive immunity. We can offer you all of our products (Decoser, Isoboard and composite materials and profiles) with this unique POLSER AMB treatment.



**POLSER FRP WALL PANELS**

### HOW IT WORKS

The active antimicrobial in the POLSER AMB products forms a colorless, odorless, positively charged polymer that molecularly bonds to the treated surface to become one and alter the surface structure. You can think of it as a layer of electrically charged swords. When a microorganism comes in contact with the treated surface, the C-18 molecular sword punctures the cell membrane and the electrical charge shocks the cell. Since nothing is transferred to the now dead cell, the antimicrobial doesn't lose strength and the sword is ready for the next cell to contact it.



## POLSER FRP ALLOWS FOR SUPERIOR HYGIENE AT ALL LEVELS

More benefits:

Broad spectrum

No negative effects (physical, visual, or odor) on product

Environmentally friendly – No leaching of toxins

Compliant with all global regulations

Resistant to organic solvents

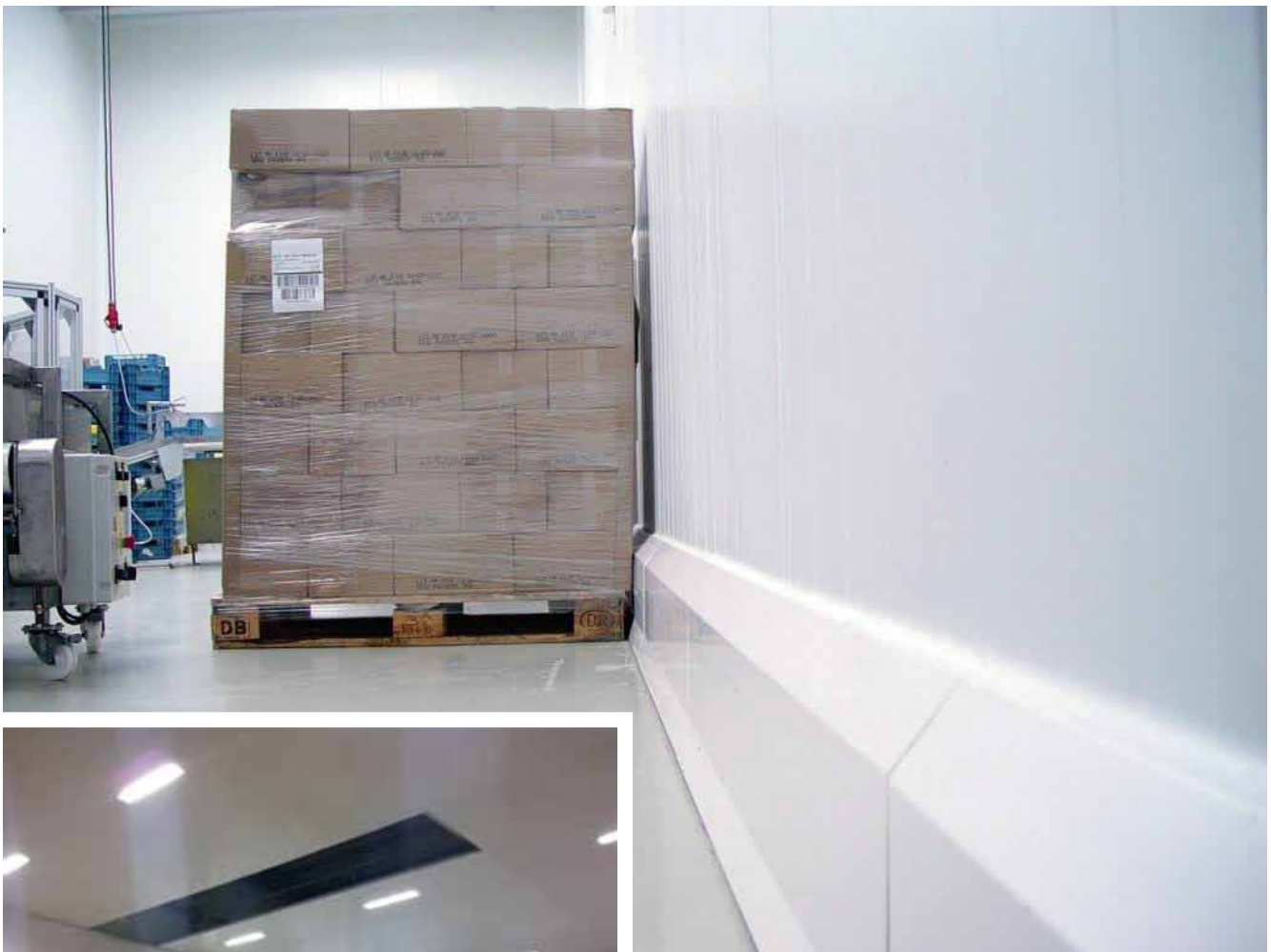
Resistant to strong acids and bases

Does not leach in water, salt, or sweat solutions

Thermally stable to 257°C

Durable

Lasts the life of the goods



A microbe's only protection from the outside world, the cell wall, is about 20 nanometers thick. 1/1000th the thickness of a plastic grocery bag, thin and vulnerable. Yet most antimicrobial technologies are designed to pass right through the cell wall and attempt to poison the microbe from the inside, interfering with its metabolism and altering its DNA. This leads to mutations and resistant-adaptive superbugs. Not a great idea!

The most well known chemicals used at present in the fight against microbes are Silver and Triclosan, both operate in this manner, these are technologies that have increasing health and safety concerns globally, both for toxicity and mutation and adaptation of super-bugs

POLSER AMB treatment is not metabolized by cells, it creates a network of charged particles that pop cells like a balloon, on contact. The technology takes advantage of the weakness of the cell wall and ruptures it with this physical/electrical force. POLSER AMB invisible coating alters the surface of the treated product, and is ready to destroy any microbes that come in contact with it. This physical rupturing of the cell wall is the best way to kill a microbe. It does not lead to resistant superbugs, and the active is not leached into the environment or person, as occurs with silver and triclosan technologies

### POLSER AMB VS COMPETITION

	AMB	SILVER	HEAVY METALS	TRICLOSAN	PHENOLS	STERILIZATION	BLEACH
<b>Safety Issues</b>	<b>Very MILD</b>	MILD	HIGH	GROWING CONCERNS	HIGH	NONE	MILD
<b>Odor Reduction</b>	<b>YES</b>	YES	YES	YES	YES	YES	YES
<b>Durability</b>	<b>Essentially PERMANENT</b>	VAIRED	TEMPORARY	TEMPORARY	TEMPORARY	TEMPORARY	TEMPORARY
<b>Green</b>	<b>YES</b>	NO	NO	NO	NO	NO	NO
<b>Super Bug Effectiveness</b>	<b>YES</b>	NO	NO	NO	NO	YES	YES
<b>Prevents Cross Contamination</b>	<b>YES</b>	NO	POSSIBLE	POSSIBLE	POSSIBLE	POSSIBLE	POSSIBLE
<b>Environment Friendly</b>	<b>YES</b>	NO	NO	NO	NO	NO	YES



SURFACE PROPERTY	DECOSER GRP SHEET (2.3 mm)	TEST METHOD
SURFACE SKIN		100 hours UVC test OK.

SURFACE PHYSICAL PROPERTY	DECOSER GRP SHEET (2.3 mm)	TEST METHOD
Weight PER square meter	3183 gram	

SURFACE PHYSICAL PROPERTY	DECOSER GRP SHEET (2.3 mm)	TEST METHOD
Polyester Type	ORTO	

RAW MATERIALS	DECOSER GRP SHEET (2.3 mm)	TEST METHOD
Polyester resin Orto	00 Parts	
Polyester resin ISO	00 Parts	
X-additive 9867	00 Parts	
Styrene	00 Parts	
Cobalt 10% solution	00 Parts	
Aluminum hydrate	00 Parts	
Color paste approximately	00 Parts	
Trigonox 21S	00 Parts	
Viscosity Din cup	Approximately 30 - 40 sec. at 20 degrees Celsius	

RAW MATERIALS	DECOSER GRP SHEET (2.3 mm)	TEST METHOD
FLEXURAL MODULUS	2758 MPa	ASTM - D790
TENSILE STRENGTH	48 MPa	ASTM - D638
TENSILE MODULUS	5516 MPa	ASTM - D638
BARCOL HARDNESS	45	ASTM - D2583
IZOD IMPACT	0.21 J / mm	ASTM - D256
COEFFICIENT OF LINEAR THERMAL EX- PANSION	36 m/m°C	ASTM - D696
WATER ABSORPTION	0.15% / 24hrs 25°C	ASTM - D570
SURFACE BURNING CHARACTERISTICS	Class C	ASTM - E84
TABER ABRASION RESISTANCE (cs-17 wheels, 1000g. Wt., 25 cycles)	0.036% Max. Wt. Loss	Taber Test
Smoke		



# DECOSER®

## AMB (Antimicrobial) SURFACE OPTION

AMB surface option provides antimicrobial protection against virus, bacteria, fungi (mold and mildew), yeast and algae to plastics. Decoser AMB will protect the FRP (fiberglass reinforced polyester) surface against attack from microbes that can cause discoloration, odours and polymer breakdown

## HYGIENIC WALL and CEILING PANELS

Decoser fiberglass reinforced plastic (GRP /FRP) sheets are being produced with continuous lamination technology by Polser FRP Panels Inc. Decoser sheets are new generation building materials which are specially engineered for buildings where minimum maintenance and maximum sanitation is required.

## APPLICATION AREAS OF DECOSER PANELS

- As suspended ceilings
- Food factories
- Fisheries
- Slaughterhouses
- Dairies
- Refrigerated warehouses
- Hospitals
- Medical laboratories
- Chemical laboratories
- Chemical plants
- Industrial kitchens
- Storage areas
- Car washes
- Prefabricated housing units
- Partition walls
- Ambulance models
- Marines
- Aircrafts
- Mobile hospitals

### Why Use DECOSER Panels ?

- Compliant with HACCP STANDARDS
- Biological resistance
- Resistant against moisture
- Resistance to corrosion
- Ease of cleaning
- Toughness
- Easy to install
- Wide color selection



### TECHNICAL SPECIFICATIONS

- |                         |   |
|-------------------------|---|
| ■ Thickness             | : 1,2 - 5,0 mm  |
| ■ Finish                | : One or two side embossed                                |
| ■ Colors                | : White, almond, beige, grey, ivory,<br>RAL colours       |
| ■ Flexural strength     | : 1.200 kg/cm <sup>2</sup> (17.000 PSI)                   |
| ■ Flex modulus          | : 42.180 kg/cm (2600.000 PSI)                             |
| ■ Tensile strength      | : 565 kg/cm <sup>2</sup> (8.000 PSI)                      |
| ■ Tensile modulus       | : 66.560 kg/cm <sup>2</sup> (943.000)Barcol               |
| ■ Barcol hardness       | : 50  |
| ■ Water absorption      | : 0.17  |
| ■ Available fire grades | : Class A - Class C (ASTM E-84),<br>Class 1 -3 (BS 476-7) |
| ■ Available sizes       | : Up to 2700 mm   |

# ISOBOARD® PRELAMINATED FLAT SANDWICH PANELS

ISOBOARD panels are manufactured by the lamination of Decoser wall liner sheets onto substrates such as plywood, OSB, EPS and XPS. The composite panels are rigid and robust in order to meet the requirements of different wall and ceiling applications.



## Why Use ISOBOARD Panels ?

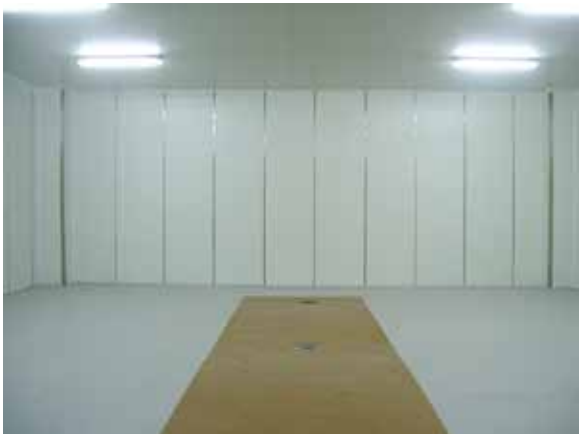
- Compliant with HACCP STANDARDS
- Isoboard panels are light weight materials but are also strong and durable
- Hygienic
- Impact and scratch resistant
- Easy to clean, easy to maintain
- Can be cleaned with steam, detergent, water or high pressure sprayers
- Easy to machine, easy to install
- The finish is stain resistant and impervious
- Chemical resistant
- Moisture resistant
- Long life, cost effective
- Available in different colors

## APPLICATION AREAS OF ISOBOARD PANELS

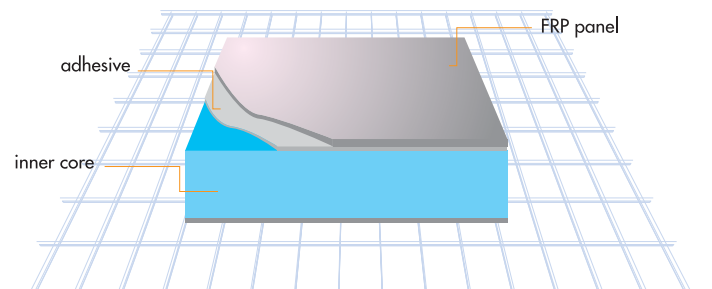
- As suspended ceilings
- As door panels for PVC frames
- Food processing plants
- Fisheries
- Slaughterhouses
- Dairies
- Refrigerated warehouses
- Hospitals
- Medical laboratories
- Chemical laboratories
- Chemical plants
- Industrial kitchens
- Storage areas
- Car washes
- Prefabricated house walls
- Partition walls



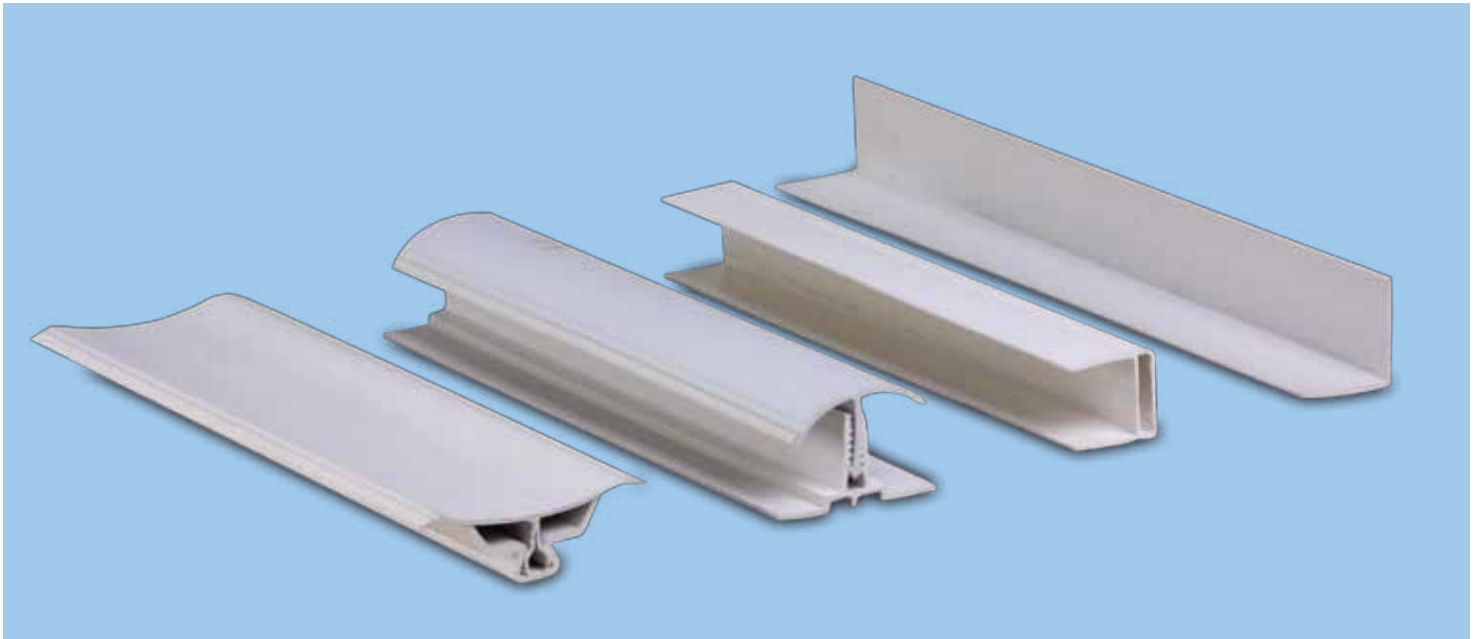
®



### SANDWICH PANELS X-SECTION



# Trims



## Sealing profiles

Sealing profiles are universally applicable ridges made of PVC for wall-, ground and slab completion.



## Division moldings



Joining components joins the hygiene panels in different versions and lengths adequately and aesthetically.



## Corner moldings and corner guards

Inside and outside corner moldings are aesthetically perfect rigid and flexible construction supplements for cleanroom solutions.

**Decoser and Isoboard panels match perfectly with our Granitron hygienic plints.**

# GRANITRON

## HYGIENIC WALL SKIRTING

### MECHANICAL ADVANTAGES

- Composite structure that is mechanically unique
- Protects partition walls against transpallet, forklift rides
- Impact resistant (for transpallet and forklift using facilities)
- Stronger than concrete
- Easy application on ceramic, concrete and masonry walls

### SURFACE PROPERTIES

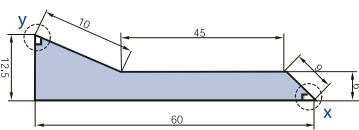
- Chemically resilient (acids, salts, grease, etc)
- Hygienic surface Polser AMB
- Compliant with HACCP STANDARDS (Hazard analysis and critical control point)
- Wide color selection with granite effect
- Water repellent
- Easy to clean



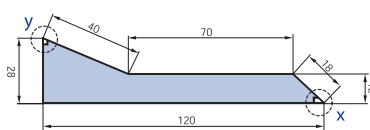
## PRODUCTS

BELOW 5 MODELS CAN BE PRODUCED AS STANDARD, RIGHT, AND LEFT MEMBERS

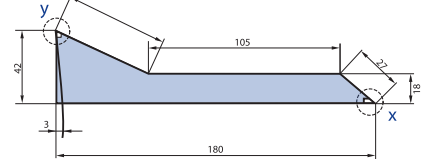
MM 0501 Heigh 6 cm



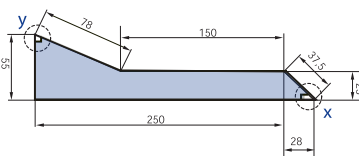
MM 0502 Heigh 12 cm



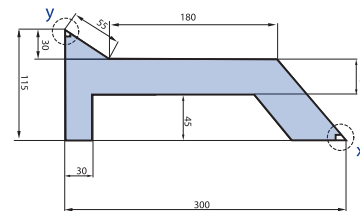
MM 0505 Heigh 18 cm



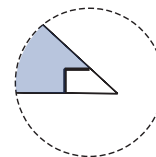
MM 0503 Heigh 25 cm



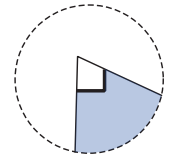
MM 0504 Heigh 30 cm



X detail

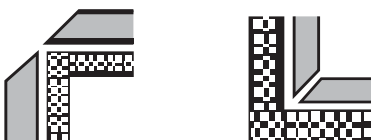


Y detail

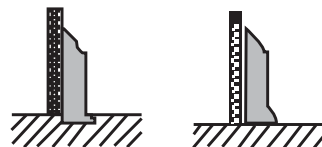


## APPLICATION DETAILS

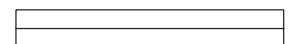
exterior corner interior corner



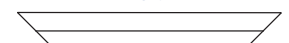
in the floor on the floor



view from above standard product 115 cm



view from above right/left product 115 cm



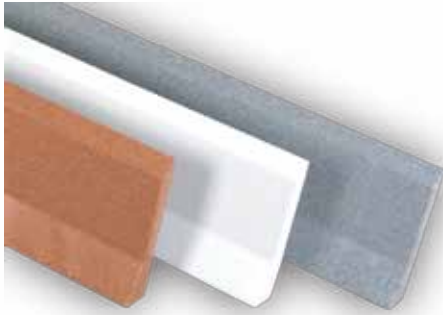
## DECOSER®



## ISOBOARD®



## GRANITRON



[www.polser.com](http://www.polser.com)

POLSER IS A COMPANY OF CINAR GROUP



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Quality Systems



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### Certifications



Turkish Standards Institute  
Quality Certificate  
TS-EN 1013-2



CONSULTANCY • TESTING  
Fire Resistance Certification  
BS 476-7 Class 3 SAB3  
Class 1 SAA



Impact Resistance Certification  
ACR(M) 001-200 Class B



Fire Resistance Certification  
No RA01-153 : M 2



Fire Resistance Certification  
DIN 4102:B2



Fire Resistance  
Certification  
E - 84 FS<25



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