CEP CLADDINGS INC.

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PRODUCT DATA
TEST RESULTS

PETRARCH & FASSET

ARCHITECTURAL PANELS

PRODUCT DESCRIPTION

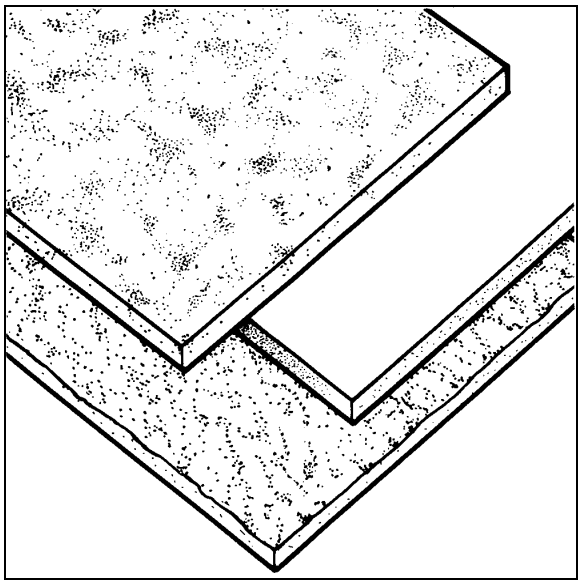
PETRARCH and FASSET are composite sheets made by incorporating natural slate and stone fillers in a resin binder with chopped fiber glass strand reinforcement. The panels are completely homogeneous, highly consolidated, with through color and will not delaminate or decay under any conditions. They have a hard, impact resistant surface with low moisture absorption producing a virtually impervious, low maintenance finish suitable for both interior and exterior use.

PERFORMANCE AND DURABILITY

PETRARCH and FASSET provide superior performance utilizing the latest panel composite technology. They have an indefinite life and are highly resistant to the effects of natural exposure, climatic extremes and atmospheric pollution. This has been confirmed by accelerated tests in a weatherometer, and natural exposure on buildings for over 30 years. In all instances the properties of PETRARCH and FASSET are substantially unchanged.

The high impact strength of PETRARCH and FASSET makes them particularly suited to use in areas where vandalism is experienced or anticipated. Due to the very low rate of moisture absorption, paint and other marking substances can be removed from the surface of the panels.

Exposure to industrial and saline atmospheres causes no deterioration. The panels have a high natural slate/stone content and as a result, will weather in a manner similar to natural materials. Initial, non-progressive change in color shade will appear. Dark colors show more change than light colors.



APPEARANCE

The eight standard colors of PETRARCH and six random multi-colors of FASSET are offered in various textures including random riven slate, smooth, honed and shot blasted. They project the aesthetic appeal of natural stone and are illustrated in the general product brochure and sample folder. Special colors and finishes are available upon request.

DIMENSIONS AND WEIGHTS

Panel Thickness	Weight (lb/SF)	Stock Size (inches)
5/16" nominal (7 mm)	3.2	47 3/4" x 95 3/4" 47 3/4" x 119 3/4"
7/16" nominal (10 mm)	4.5	

Note: The size tolerance is ± 1/8" and the thickness tolerance is ± 1/16". The riven textured surface results in an additional manufacturing tolerance of ± 1/16".

See our catalog in Sweet's AEC, Section 07415/PET.

TEST RESULTS

The following ASTM test have been carried out by an independent United States testing laboratory:

ASTM TEST DESCRIPTION		TEST RESULTS	
		5/16" PANEL	7/16" PANEL
ASTM D-792	Density	2.24	2.27
ASTM D-570	Moisture Absorption	0.08%	0.06%
ASTM D-790	Modulus of Rupture and Elasticity	5690 psi 3.07×10^6 psi	5850 3.13×10^6 psi
ASTM D-638	Tensile Strength	2960 psi	2880 psi
ASTM D-177	Thermal Conductivity	4.862BTU IN/HR-Ft^2	5.822BTU IN/HR-Ft^2
ASTM D-696	Thermal Expansion	15.8×10^{-6} IN/IN°C	15.8×10^{-6} IN/IN°C
ASTM D-256	Izod Impact Test	0.49 Ft-Lbs/Ins of Notch	0.43 Ft-Lbs/Ins of Notch
ASTM D-785	Hardness Barcol	64	64
ASTM E84-81	Flame Spread Fuel Contribution	15 0	15 0

FIRE GRADE

As per the ASTM E84-81 Tunnel Test, the flame spread is 15 and the fuel contribution is 0. PETRARCH and FASSET therefore, conform to a Class A fire rating.

WIND LOADING

The most common cause of any panel system failure is inadequate fastening leading to excessive deflection or stress on the panel. Petrarch approved installation systems are designed to withstand wind loads up to 40 pounds per square foot.

MOISTURE, BIOLOGICAL AND CHEMICAL RESISTANCE

Moisture Absorption (24 hours total immersion)	0.2% by weight
Permeability (BS473, 550)	16×10^{-6}ml/m^2
Apparent porosity	1%

PETRARCH and FASSET are resistant to most acid and organic solvents. The panels are immune to insect and vermin attack and their low porosity inhibits mold growth.

FROST RESISTANCE

Due to the nature of its homogeneous reinforcement, PETRARCH and FASSET will not delaminate or decay when subject to freezing or thawing conditions. Cyclic freeze/thaw testing has shown that no changes occurred after 250 cycles of temperature changes between -40°F and +120°F. Panels have been specified and installed in every type of climate, from Saudi Arabia to Alaska.

THERMAL INSULATION

PETRARCH and FASSET are products of high density and low thickness and the contribution to thermal insulation is therefore small. Insulation values are provided using back-up insulating materials. Panels are often laminated with insulation producing energy efficient sandwich panels.

THERMAL EXPANSION

5/16" and 7/16" 15.8×10^{-6}IN/IN°C
A 90° temperature change will produce 1/16" movement in a 48" width of 5/16" PETRARCH or FASSET. It is important in all external applications, particularly those in areas with abnormally high extremes of temperature, that proper provision is made for expansion and movement.

FABRICATION

Factory Fabrication
Having panels fabricated before shipment saves labor on site, insures precision and quality control provides for material that is clean and ready to install. PETRARCH CLADDINGS, INC. offers a comprehensive fabrication service including:

1. Cutting standard sheets to special sizes.
2. Pre-drilling or countersinking fastener holes.
3. Cutting special shapes and cut-outs.
4. Polishing, beveling or mitering edges.
5. Grooving and engraving.
6. Prefabricating inside and outside corners.
7. Preparing 7/16" panels with special inserts for the back fastening system.
8. Bonding insulation materials to panels.

Panels are often delivered already cut to size and pre-drilled, but it is usually necessary to fabricate some panels on the job, for example: corner panels cut to suit a site dimension.

Shop Cutting
Cutting in the shop or on site is usually carried out using an electric circular saw with either an abrasive cutting disc (for minimal cutting) or a dry-cut diamond blade (for more extensive cutting). ***Operators should always wear eye protection and a respiratory mask.*** The panels should be face up, held down to a flat saw bed and a guide rail used to ensure true and straight cutting. Dust should be cleaned from all panels immediately after cutting.

Hole Drilling
Normal drilling can be carried out using a portable hand-held pistol drill fitted with a masonry bit suitable for drilling at between speeds of 900 and 1200 rpm. The drill size should be 1/16" larger than the screw shank diameter. Dust should be cleaned from all panels immediately after drilling.

Special drills can be supplied to combine the drill and countersink operation where applicable. These are suitable for various size screws and will provide accurate countersinking for either wood or self-drilling tek point screws. When ordering these tools it is important to specify the type of screw being used. The depth of countersinking is vital to the success of subsequent hole filling and the load carrying capacity of the screws. Refer to the PETRARCH Face Fastening Installation Guide for more details on proper drilling and hole filling.

Edge Polishing
After cutting, the edge will appear to be lighter than the face of the panel (most obvious with dark colors). An exposed edge (for example, at a corner detail) can be polished using a "wet and dry" abrasive pad with water. This will remove saw marks and polish the edge to the main body color of the panel. Polishing can be carried out by PETRARCH CLADDINGS. Specify exact edges when ordering.

STORAGE AND HANDLING

Extreme care should be taken when handling PETRARCH and FASSET on site. Panels will normally be delivered to the site on wood pallets, face side up, separated by embossed straw paper and wrapped in plastic sheets. The pallets should be stored flat, clear of the ground and under cover in a ventilated space. Extreme care should be taken to avoid rain or standing water as migration of moisture between the panels can cause staining or bowing. Should wet material be suspected or discovered, it must be uncrated immediately and towel dried.

Panels should always be carried vertically and care taken not to damage the surface, edges or corners. To prevent surface scratches or marks, one sheet must always be lifted completely off the next. The face of one panel must never be slid across another or across a work surface. They should not be temporarily stored outside of the original shipping crate unless completely supported and separated by the protective paper. If mechanical lifting equipment is used, panels should always be properly protected to avoid scuffing from ropes or chains.

If the panels are soiled or scratched, remedial treatment should be administered *immediately* for best results (as outlined in the following section). It is much easier to clean *before* the panels are in place rather than after permanently installed when the panels are more difficult to access.

CLEANING

PETRARCH and FASSET have very low absorbency and therefore the attraction of atmospheric dirt is minimal. Generally rain water will provide sufficient cleansing. To keep panels bright and clean, the building owner should include an inspection in his annual maintenance schedule. A high pressure wash or scrubbing with a mild detergent followed by a clean water rinse, at high pressure, from the top down, using standard commercial cleansing techniques is all that is normally required. During installation or subsequently during building alterations, building site dirt and dust can contaminate the surface. This should be removed immediately. The following lists the most common contaminants and the recommended course of action for cleaning:

Drilling and Cutting Dust
After drilling or cutting, it is important to clean down the panel *immediately,* before panel installation. Use a sponge or brush and hot water with a mild diluted detergent and rinse with clean water, at high pressure, from the top down. If the dust is allowed to collect on the surface, it will become ingrained into the texture and will subsequently require more vigorous cleaning. Hole filling should *never* be done until the panel has been thoroughly cleaned.

Surface Scratches
When a scratch occurs, it will leave a light mark. This can be removed by gently rubbing with steel wool, “Brillo”, or a similar pad using hot water with a mild diluted detergent. The indentation caused by the scratch cannot be removed and the use of the pad is to polish the damaged slate particles and return them to the body color of the material. In cases of extreme abuse, contact PETRARCH CLADDINGS for further recommendations.

Splashes of Plaster and Concrete
These are most easily removed before the plaster or cement has set. To clean, simply hose off with a jet of water and finally wipe down with a clean cloth. If plaster or concrete sets, then apply a hydrochloric acid solution (10%) and within 15 minutes wash with hot water with a mild diluted detergent. Finally, rinse with clean water at high pressure.

Paints
These are best removed when the paint is wet using the appropriate solvent and washing down with hot, soapy water. If the paint has dried, apply the appropriate solvent to the affected area with a nylon brush. It may be necessary to repeat this several times before all the paint is removed. Afterwards, thoroughly scrub the panels using hot water with a mild diluted detergent and rinse with clean water at high pressure, from the top down.

DO NOT ALLOW SOAP OR DETERGENT TO DRY OR BAKE ONTO THE PANEL SURFACE. ALWAYS THOROUGHLY RINSE.

DO NOT USE PAINT STRIPPERS AS THESE CAN PERMANENTLY STAIN THE PANELS.

Tar, Creosote, Grease, Lacquer Paint
Clean the affected area with an appropriate solvent (see below) and if necessary, scrub with a nylon brush. Finally, wash down with hot water with a mild diluted detergent and rinse with clean water at high pressure, from the top down.

Pen, Pencil, Crayon, Lipstick
Use hot water with a mild diluted detergent and scrub with a nylon brush, finally rinsing with clean water. Pencil marks can often be removed with a simple eraser.

Caulking Materials
Using the solvent recommended by the caulking manufacturer, if necessary using a nylon brush, wash down with hot water with a mild diluted detergent and finally rinse with clean water at high pressure, from the top down. Structural silicone sealants must be removed from the panel surface immediately. If allowed to cure, they can leave a permanent residue.

Solvents
PETRARCH and FASSET are unaffected by the following solvents:

- Turpentine
- White Spirit
- Carbon Tetrachloride
- Toluene
- Xylene
- Paraffin
- Gasoline

The following solvents can also be used, but should be removed and the panel cleaned within 60 minutes:

- Methyl Ethyl Ketone
- Acetone
- Methylated Spirit
- Ethyl Acetate
- Trichlorethylene