

PART ONE – GENERAL

A DESCRIPTION

- 1 Interior and exterior architectural details and millwork shall be manufactured of High Density Polyurethane as supplied by Chemcrest Architectural Products.
- 2 Chemcrest's continuous improvement policy means that we may, without notice, change our designs at any time.

B SUBMITTALS

- 1 **Product Data:** Submit manufacturer's descriptive literature, specifications, installation instructions and limited warranties.
- 2 **Warranty:** Manufacturer's Limited Lifetime Polyurethane Warranty is to be submitted.
- 3 **Product Material Specifications:** Obtain from the manufacturer for submission to the relevant building code authority.

C SUBSTITUTIONS

- 1 Substitutions from the Chemcrest specified architectural details and building components will be allowed only with the express written consent of the Owner or Architect.

D PRODUCT MATERIALS

- 1 All interior and exterior products as supplied by Chemcrest will have an integral barrier coat, and a top coat primer for UV degradation resistance.
- 2 Any polyurethane products as supplied by Chemcrest are water resistant.
- 3 Any polyurethane products as supplied by Chemcrest are odour-free and are manufactured **without CFC's** therefore do not harm the earth's ozone layer.
- 4 Chemcrest supplied products resist the growth of mould and mildew, and are avoided by termites and other destructive insects, rodents, and organisms.
- 5 Chemcrest supplied products provide a greater insulating value (R value) than comparable wood products.

E DELIVERY AND STORAGE

- 1 Chemcrest products should be shipped flat or on a wrapped skid as provided by Chemcrest. Do not open or rearrange the shipments as they are stacked and packaged to prevent damages. Do not stack other products on top of Chemcrest products as this may cause internal or concealed damage.
- 2 Polyurethane products maintain the same physical characteristics as wood products. Therefore, when Chemcrest products are delivered to the job site, all items must be acclimatized. To acclimatize, unwrap the product 12 hours before installing and allow the product to remain in the exact same environment (temperature and humidity) as the installation location. This will allow the polyurethane product to expand or contract, adjusting to the current climate conditions, thereby preventing unwanted movement during installation.

PART TWO – PHYSICAL PROPERTIES

A DENSITY

Chemcrest products are made with high-density polyurethane foam with an overall core density similar to White Pine at between 14 and 24 lb. per cubic foot. Chemcrest's manufacturing process provides a greater skin density than core density, which increases durability.

B SURFACE PROPERTIES AND FINISHES

All products are produced incorporating a white or tan/wood colour barrier coating. In addition to this integral barrier coat, all products receive a primer coat with built-in UV inhibitors. The combination of the integral shell-like skin, the barrier coat, and the primer top coat provide an excellent substrate for durable finishes.

C Ultra Violet: Ultra Violet rays do not affect properly coated polyurethane products.

D Compressive Strength: Falls within the 300 – 400 P.S.I. range.

E Tensile Strength: Falls within the 350 – 400 P.S.I. range.

F Flexural Strength: The degree of flexibility in any given polyurethane product is determined by the shape and size of its cross section. Due to the inherent flex characteristics of lineal footage products, they will follow some curvature and uneven surfaces.

Specifications

- G Moisture Resistance:** Chemcrest polyurethane has a closed cell structure which provides protection from most solvents and renders it almost completely moisture resistant.
- H Mildew Resistance:** All Chemcrest polyurethane products are mold and mildew resistant and cannot be harmed by termites or other insects or rodents.
- I Flammability:** All polyurethane materials are combustible when exposed to open flame – as all wood materials are. Chemcrest does offer a Class 1A Fire Rated option which complies with ASTM-E84.
- J Shrinkage:** All polyurethane materials will expand and contract nominally depending on environmental factors such as temperature and humidity. Chemcrest installation instructions and polyurethane based adhesive recommendations are available to best address shrinkage and must be used in order not to void warranty.

PART THREE – INSTALLATION

A GENERAL

- 1** Unless otherwise specified, all Chemcrest products are decorative only. Chemcrest polyurethane products are handled in the same manner as is wood. Use the same basic tools as the carpentry trade. Never install Chemcrest products using mechanical fasteners only. All Chemcrest products must be installed using an approved polyurethane based adhesive on all contact surfaces in addition to mechanical fasteners such as nails, screws, bolts, etc. Remove excess adhesive immediately! Countersink all mechanical fasteners and patch the holes with any interior/exterior non-shrinking patching compound such as spackle or plastic wood filler. Prime and paint to finish as required with a high quality oil or latex based paint. (Use Gel stains to bring out the natural wood look of our wood grained products).
- 2 Moulding Installation:** Mouldings should be mitered for Inside and Outside corners and compression butt-jointed on straight applications. Chemcrest recommends that before any adhesive is applied, cut and dry fit the entire room or project. Begin in the most inconspicuous inside corner of the room and work around the room matching the pattern at each corner. Eventually you will end up back at your starting point where it may not be possible to match the pattern. Compression joints are accomplished by installing the moulding in a space slightly shorter than the actual moulding length (approx. 1/4" shorter over a 12' piece). After a generous amount of polyurethane based adhesive has been applied to all contact surfaces, attach each end of the moulding to your substrate first, causing a slight outward bowing. Once each end has been securely fastened, apply pressure to the center of the moulding "snapping" the moulding against the wall. Add additional mechanical fasteners to secure the moulding to your substrate. Finish as specified in **1** above.
- 3 Column Installation:** Chemcrest columns are non-structural. They can be ordered pre-assembled or split in two vertical halves for easy installation on your project. Chemcrest Columns can be installed over existing load bearing structures or can be used as non-load bearing decorative accents. There are several installation techniques used depending on the job site circumstances. Following are two of the most practiced methods.

Pre-assembled Columns:

These columns are already moulded into finished columns with the base shipped loose. Measure the overall height that you need to fill and cut the column shaft so that with the cap and base installed, the combined unit will fit snugly into your opening. Be sure to use plenty of polyurethane based adhesive to join the cap and base to the column shaft. Secure the completed column using mechanical fasteners, and patch the holes using an interior/exterior non-shrinking patching compound. Use a paintable latex caulking to finish the seams between the substrate and the cap and base. Prime and paint as required.

Split Columns:

When installing split columns over existing structural supports, first cut the base and cap (if provided) in half, and cope them to fit loosely around the structural support. Use mechanical fasteners and plenty of polyurethane based adhesive on both halves of the cap and base and the ceiling and floor. Measure the distance between the mounted cap and base, and cut each column half appropriately. Assemble the two half shafts around the structural support using the same adhesive and the supplied aligning splines. Both screws and air nails can be used to hold the two halves together until the adhesive has set. Remove excess adhesive immediately! After 24 – 48 hours, the adhesive will be set and the columns can be seamed using an interior/exterior non-shrinking wood filler or body filler. Sand, prime and paint as required.

B FINISHING

- 1** All non-woodgrain Chemcrest polyurethane products are supplied with a white double primed finish ready for customer-applied finish top coat. Quality latex or oil based paint may be used. Some Chemcrest products are stainable with a gelled stain and are identified as "Wood Grain". All woodgrain products have a tan primer coat.

Specifications

PART FOUR – WARRANTY AND POLICIES

1 Chemcrest Architectural Products Limited Lifetime Polyurethane Warranty

The Chemcrest Corporation's Limited Lifetime Polyurethane Warranty, warrants to the original purchaser, it's rigid polyurethane material will be free from defects in material and workmanship for as long as the original purchaser resides in the home that the product was installed, when the polyurethane is installed, finish painted, and used under recommended conditions and instructions.

Chemcrest also warrants to the original purchaser, for a period of one (1) year from the date of purchase, it's white exterior primer paint applied to the polyurethane, will be free from blistering and peeling, when used, installed, and finish painted under recommended conditions and instructions.

Chemcrest also warrants to the original purchaser, for a period of one (1) year from date of purchase, it's Fiber Reinforced Products, and Flexible Urethane Products will be free from defects in material and workmanship, when installed, finished, and used under recommended conditions and instructions.

The original purchaser and their Installer(s) must inspect every piece prior to installation. Both parties must waive all defects which could have been discovered by reasonable inspection prior to installation. Warranty will automatically be void if a Chemcrest approved adhesive is not used as per section entitled "Installation". Failure to follow Chemcrest's storage and handling instructions will void this limited warranty. In the event that a claim is made under this warranty and conditions have been met, the Original Purchaser must notify Chemcrest in writing within thirty (30) days of making the discovery. Chemcrest reserves the right to inspect the defective product on site, or request that the original purchaser at their expense, return the defective product to the Chemcrest factory (830 King Edward St., Winnipeg, Manitoba, R3H 0P5, CANADA), for inspection. Chemcrest will then determine if the product failed, and whether or not it will repair, replace, or refund said defective parts.

Chemcrest shall have no liability to any person, firm, or corporation whatsoever for incidental or consequential damages such as, but not limited to, labour, finishing, parts damaged in transit, freight charges, installation, lost profits, lost sales, acts of nature, civil unrest, or acts of terrorism.

No purchaser may take any deduction or credit against any amount owed to Chemcrest, or make any charge back with regards to a warranty claim, without the expressed written consent of Chemcrest.

This limited warranty is exclusive, and made in lieu of all other express warranties, whether written, oral, or implied (including any warranty of merchantability or fitness for purpose), and extends only to the original purchaser's purchase.

Some states and provinces may not allow limitations on how long an implied warranty lasts, or the exclusion and limitations of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

PART FIVE – SPECIALTY PRODUCTS

A CHEMCREST FIRE RESISTANT MATERIALS

- 1 Recognizing the demand from the commercial and institutional sectors, Chemcrest Architectural Products offers a Fire Resistant option to most of its interior products.
- 2 Chemcrest's Fire Resistant option ensures a Class 1A rating. Chemcrest flame spread index, calculated according to ASTM E-84, meets Class A (Class 1) – 25 or under flame spread index and a smoke development index of less than 450.
- 3 Additional charges apply to Chemcrest's Fire Resistant option – see Chemcrest Price List for details.

B CHEMCREST EZ-FLEX/CHEM-FLEX

- 1 Many of Chemcrest's products may be produced in flexible polyurethane for use in curved wall applications. EZ-Flex and Chem-Flex (Chem-Flex - interior only) are flexible urethane profiles to match Chemcrest's rigid moulding profiles and may be painted on site.
- 2 When ordering EZ-Flex and Chem-Flex for various radius parts, please provide Chemcrest with the exact inside and outside diameter or radius dimensions. If these measurements are not consistent, please provide Chemcrest with a template.
- 3 A rigid arch required for a specific radius, would be considered a custom part – see Chemcrest Custom Shop information.
- 4 The "flex" option to the high-density foam formulation may soften detail definition and may make some moulding profiles unfeasible. Please check with your Customer Service Representative before placing your order – call toll free 800-665-6653.
- 5 Additional charges apply to Chemcrest's flexible moulding options – see Chemcrest Price List for details.

Specifications

C CHEMCREST PRE-FINISHED MATERIALS

- 1 Chemcrest's Manufacturing Plant is equipped with a complete professional paint facility. Chemcrest is able to supply products pre-finished to match customers' custom colour and staining specifications for both residential and commercial applications.
- 2 Chemcrest will quote each job individually based on customers' specifications as to type of finish, colour and number of coats required. Please call your Customer Service Representative for further information regarding Chemcrest's finishing capacity. In all cases, you will be required to supply a sample of the type of finish you are looking for before work begins.
- 3 Additional charges apply to Chemcrest's Pre-Finished option. Please call for quotation.

D FORMED GLASSFIBER AND PRE-COATED EPS PRODUCTS

- 1 Chemcrest offers G.R.G., F.R.P, Pre-coated EPS, and eP.V.C. products. Please call for individual specifications and literature on any of these fine Chemcrest products.

PART SIX – CHEMCREST CUSTOM SHOP

- A** Chemcrest's Manufacturing Plant is equipped with a complete and professional carpentry shop. Over the past number of years Chemcrest has grown by being able to produce new and exciting quality products for many different market niches. We have excelled in the quality of reproduction by having great resources of talent in our factory and carpentry shops. Chemcrest prides itself on being able to offer our customers virtually anything they can dream up in the way of architectural detailing.
- B** All custom jobs are quoted individually – call for details and prices.

PART SEVEN – BUILDING CODES

- 1 As there are numerous dominant Building Codes in existence and practice throughout North America, in addition to the many State-level and Provincial codes, Chemcrest strongly urges Specifiers and users to refer to their local codes as to the uses of polyurethane foam millwork and building components. As with any polyurethane foam product, Chemcrest standard products are not designed or sold to provide structural support unless otherwise stated (balustrade systems for example). Structural support mechanisms as allowed by your local Building Code can be enhanced, but not replaced with Chemcrest products.