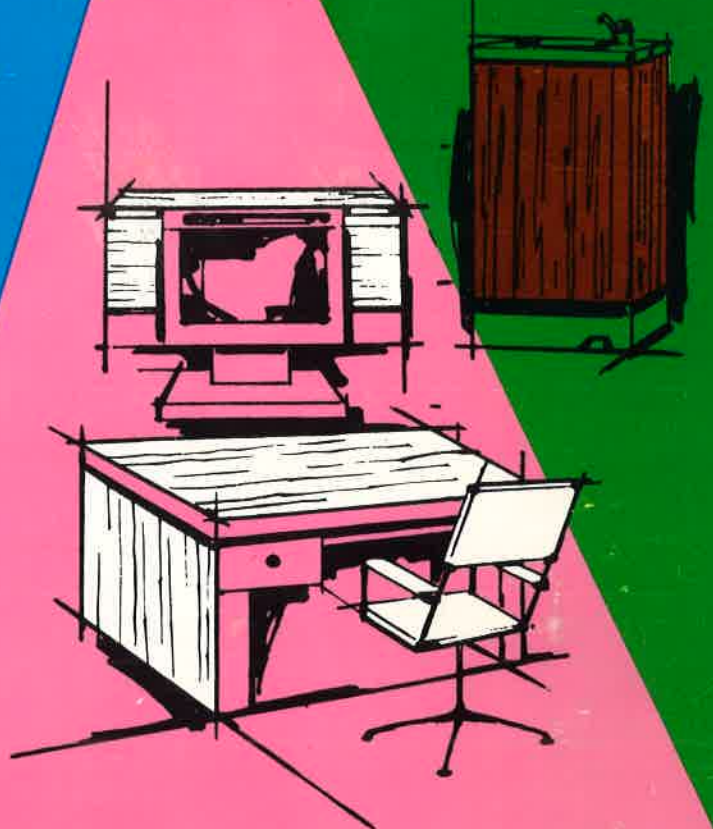
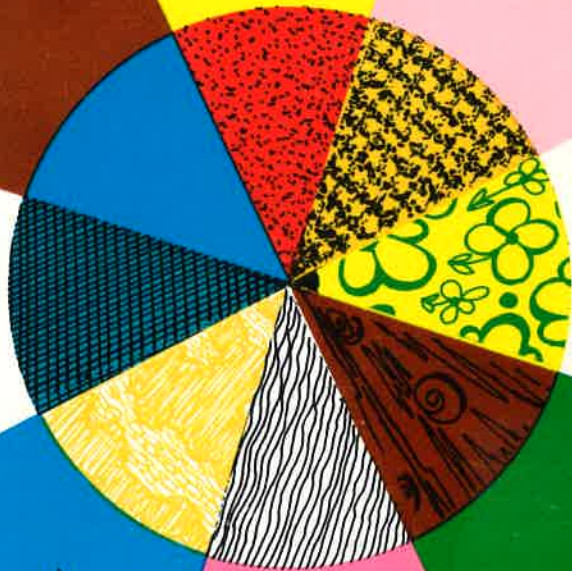




# CLAD REX<sup>®</sup> *Vinyl Clad Metals*

TO ENHANCE YOUR PRODUCTS  
AND YOUR PROFITS



*Let exciting beauty and endless variety of*

# CLAD REX®

VINYL CLAD METALS

help you stimulate more sales, expand your line  
at minimum cost and produce greater profits

## *What is it?*

Clad-Rex is a pre-finished sheet that comes to your plant ready for fabrication. It consists of a vinyl film permanently bonded to steel or aluminum. The result is a unique combination blending the vast range of texture, color and design available in the field of *modern plastics*, with the functional strength and workability of *metal*. In short, it's tough, light, strong, resistant to wear, stains and corrosion; exceptionally decorative, appealing to the eye and the touch; and offering many production economies.



## *What Colors and Patterns?*

There are over 100 Clad-Rex stock patterns, designs, colors and textures readily available plus an unlimited variety of custom designs. Beautifully simulated wood grains, true in color and appearance, handsome leather grains, tweeds, linens and most fabric reproductions are authentic duplicates of the originals. With Clad-Rex, you can let your imagination run wild — if we don't already have it in stock, we'll produce it for you in custom colors, prints or embossings . . . all designed to help your product stand out, sales-wise and profit-wise.



## *Where is it used?*

There is practically no limit to the application of Clad-Rex. Most any product, consumer or industrial for home, plant or office, can benefit from its decorative and customer-captivating effect. A partial list of industries now using Clad-Rex to enhance appearance and upgrade and expand their product lines include: Aircraft — Automotive — Awards and Trophies — Building Materials — Carrying Cases — Displays and Store Fixtures — Electrical Products and Fixtures — Furniture — Heating and Air Conditioning Equipment — Housewares — Major Appliances — Office Equipment and Furniture — Partitions and Room Dividers — Photographic Equipment — Radios — Stereos — Toys — Transportation Equipment — TV Sets and Vending Equipment . . . there is truly no end to the list of products that can benefit from the use of Clad-Rex.



## *Is it Durable?*

Clad-Rex wears better than any other pre-finished product, whether painted, plated or polished metal. It is dimensionally stable, will not chip, crack, craze or peel, and offers excellent resistance to abrasion and corrosion. (See back page.)



## *Is it Stain-Resistant?*

Clad-Rex is not only resistant to stains, but it is impervious to most commonly encountered acids and alkalis. It is resistant to fading and to attack by moisture and corrosive atmospheres. (See back page.)



## *Does it offer any Production Economies?*

Because it is pre-finished, Clad-Rex can go directly from fabricating to assembly, eliminating many costly finishing operations. At the same time, it can be fabricated by regular production methods in most applications. It can be worked as easily as non-laminated materials, and usually easier than pre-finished lacquered, painted, polished or plated metals.



# Why Clad-Rex is "King" of the VINYL-METAL LAMINATES

Clad-Rex is the originator and pioneer of the vinyl clad metal process. We started it all. It is our only business and we are constantly working to improve it. Our plant and production lines were specifically designed and constructed to laminate vinyl to various sheet metals. As a result of ongoing research and continuous testing, we provide today, the leading methods and processes for laminating vinyl to metal.

## CLAD-REX IS YOUR SUPPLIER Not your Competitor

Clad-Rex sells only to manufacturers and fabricators and does not compete with any customer in the production of finished products or components.

## Exclusive "Rexbond" Adhesive Plus Methodology Guarantees Permanent Bonding

The finest adhesive technology applied with precise quality control on specially built equipment, insures the permanency of the laminate bond, and assures the fabricator of complete satisfaction.

### DOES IT REQUIRE ANY SPECIAL FABRICATING?

Clad-Rex can be formed and fabricated on standard metal forming machines without costly re-tooling or special techniques. It can be deep drawn, sheared, crimped, bent, drilled, punched, spun or embossed without damage to surface patterns or textures, and without separation of the laminating bond. In fact, forming is actually facilitated because the vinyl acts as a lubricant.

### DOES IT NEED ANY SPECIAL ASSEMBLY TECHNIQUES?

Clad-Rex can be joined by standard mechanical fasteners, adhesive bonding, resistance or stud welding, or lock seaming eliminating many expensive finishing and assembly operations.

### WHAT ABOUT COST?

In addition to the many decorative and fabricating advantages and benefits of Clad-Rex, it actually costs less than most other patterned materials or combinations designed to provide structural strength with a handsome durable finish. You will find Clad-Rex costs less than any hand laid-up material, any pressure sensitive material or any high pressure laminate.



### SUBSTRATE CAPACITIES

#### Metal

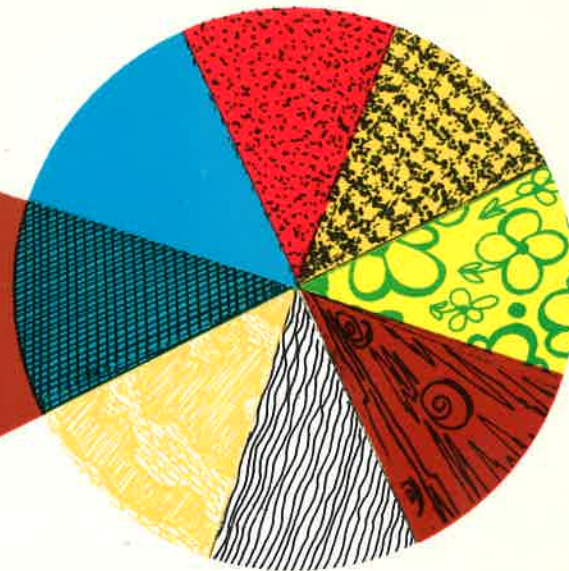
Metals are laminated in sheets up to 53 wide 144 long. Delivered in flat sheets only. Pre-sheared blanks can be supplied to customers' specifications with tolerances of  $\pm 1/64"$ .

#### Steel

(including electro-galvanized) . . . . . 080 through .016

#### Aluminum

125 through .020. Other metallic substrates and gauges are available upon request in special orders.



## CLAD-REX LAMINATES THE FLATTEST SHEETS MADE.

Through special equipment developed exclusively for us, you will receive flatter sheets, minimizing any production problems.



## Special Advantages of Clad-Rex

### TO THE DESIGNER

There are practically no limitations to hold back the designer's creativity. Greater variety is the key word. With over 100 stock patterns and colors plus an endless variety of custom applications, he can give full rein to his imagination in developing exciting new designs and new decorative highlights without production difficulties.

### TO THE ENGINEER

who can adapt the fabrication of the product to his existing techniques without expensive re-tooling or manufacturing problems.

### TO THE PURCHASING AGENT

who can buy Clad-Rex, a quality product, quickly and easily, meeting all necessary specifications on time, plus gaining the advantages of overall production economies.

### TO MANAGEMENT

It can add exciting sales appeal to its products and equally exciting profit advantages. The bottom line on the balance sheet will be vastly improved when Clad-Rex is used to enhance product and profits.

### IDEALLY LOCATED

right in the heart of the steel industry. That means a ready and steady supply of metal, with more prime sources available to us. To you it means no waiting, no shortages, lower freight costs and better trucking options.

# Compare these TEST Results

and see why Clad-Rex Vinyl-Metal Laminates are superior to other pre-finished products.

## CLAD-REX VINYL-METAL LAMINATES COMPARATIVE TEST RESULTS

### PHYSICAL TESTS

	Properties of Film (8 Mil)	Properties of Laminate
Ultimate Tensile	4400 psi	Tensile of Supporting Metal
Ultimate Elongation	170%	Elongation of Supporting Metal
Tear Strength	910 lb. in.	Dependent on Metal Gauge
Bend Brittle, 1/4" rod	-5°C.	-30°C.
Reverse Impact	Tears	120 in.—lbs.
Heat Deformation at 120°C. 2000 g. load	32%	30% (1 side)
Shrinkage 5 min. at 250°F.	4.6% with calender grain 1.6% cross calender grain	0.6% None

### DATA ON OTHER FILMS AND MATERIALS AVAILABLE

The wide range of tests shown are laboratory proof of the quality features of Clad-Rex vinyl-metal laminates. Tests were made on vinyl-metal laminates with 8-mil film.

### CHEMICAL RESISTANCE DATA

(Cup tests run at 150°F reveal that Clad-Rex vinyl-metal laminate is superior to metal coated with either phenolic or alkyd type linings.)

	Vinyl-Metal Laminate		Phenolic		ALKYD	
	Exposed	Result	Exposed	Result	Exposed	Result
10% Sulfuric Acid	17 Days	OK	2 Days	Failed	2 Days	Failed
10% Nitric Acid	17 Days	OK	2 Days	Failed	2 Days	Failed
10% Hydrochloric Acid	17 Days	OK	2 Days	Failed	2 Days	Failed
10% Acetic Acid	17 Days	OK	2 Days	Failed	2 Days	Failed
10% Lactic Acid	17 Days	OK	17 Days	Failed	2 Days	Failed
10% Formaldehyde	17 Days	Swelled	2 Days	Failed	2 Days	Failed
10% Caustic Potash	17 Days	OK	3 Days	Failed	2 Days	Failed
Distilled Water	17 Days	OK	17 Days	Failed	2 Days	Failed
Mineral Oil	17 Days	OK	17 Days	OK	17 Days	OK
Ethanol	17 Days	Sl. Shrink	17 Days	OK	17 Days	OK

### EXPOSURE TO MOISTURE

Panels of Clad-Rex vinyl-metal laminate exposed for 1000 hours to 100% relative humidity at 160 degrees F. showed no evidence of adhesion failure or blistering. Minor absorption of moisture caused a slight color change and loss of gloss. Panels exposed to intermittent water spray at ambient temperatures showed no deterioration after one year.

### ABRASION TESTS

(Abrasion resistance determined with a Taber Abrader using a CS-10 wheel.)

Coating	Mils Film Thick.	Total Revolutions	Revolutions Per Mil Coating Thick.
Vinyl-Metal Laminate	4.0	8,430	2,108
Vinyl-Metal Laminate	8.5	17,156	2,100
Phenolic	1.25	1,204	1,000
Urea-Alkyd	1.70	122	72
Vinyl Lacquer Coating	2.0 Ave.	703-954	351-477

### HEAT AGING

Following exposure to a temperature of 150 degrees F. for 600 hours, Clad-Rex vinyl-metal laminate panels showed no loss of adhesion nor tendency toward delamination. Some colors showed an insignificant amount of discoloration. As a result of these tests, it is expected that Clad-Rex vinyl-metal laminate will withstand even higher temperatures without deterioration.

### WEATHER AGING

Samples were exposed to a severe industrial atmosphere for 4½ years. They were positioned to face south at a 45-degree angle.

Vinyl-metal laminate	Color	Chalking	% Reflectance	Discoloration
181-34 (Orig.)	White	None	77	None
(Aged)		Slight	67	Slight
181-59 (Orig.)	Green	None	78	None
(Aged)		None	78	None
181-71 (Orig.)	Blue	None	75	None
(Aged)		None	68	None
181-72 (Orig.)	Green	None	79	None
(Aged)		None	66	Slight

### WEATHEROMETER TESTING

These tests were conducted to evaluate the laminates resistance to chalking and discoloration. Five hundred hours exposure to ultra-violet in a Twinarc Weatherometer caused no perceptible chalking.

### EXPOSURE TO COMMON HOUSEHOLD SUBSTANCES

Overnight exposure to various materials found in the kitchen showed a generally excellent reaction.

ITEM	EFFECT	ITEM	EFFECT	ITEM	EFFECT
Lemon Peel	None	Tea	None	Clorox	None
Orange Peel	None	Rit (red dye)	Stained	Banana Peel	None
Spinach	Stained	Green food coloring	None	Mustard	Stained
Coffee	None	10% citric acid	None	Ketchup	None

Design Engineering and Product Development Assistance

# CLAD REX®

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