TESCO Products Inc.

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* Product Data * Divider Strips
* September 2005 *
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TESCO Products began producing alloy divider strips in **1975** and has produced and sold **millions** of feet of this superior strip to the Terrazzo and construction trade. TESCO has done away with most of the drawbacks of the old fashioned zinc topped, 2 piece, galvanized steel base divider strips.

No zinc tops to separate from the steel base and ruin a good terrazzo or flooring job. No other white metal divider strip is recommended for exterior use. No other strip will stand up better under severe acid or salt attack.

Due to the space age alloy that TESCO uses, cement products actually form a coating on our alloy strips that promotes bonding to cement and protects the strip from further attack by alkaline.

GUARANTEE: We guarantee our alloy divider strips to have equal or better performance characteristics than zinc dividers when used in cement, epoxy, polyester, polyacrylic or any other terrazzo or flooring systems.

CORROSION RATE WHEN PARTIALLY EMBEDDED IN CONCRETE;

	ZINC	TESCO ALLOY
	====	==========
* Muriatic Acid, as frequently used for cleaning terrazzo	Effected	No Effect
* Light Salt Solutions, such a Calcium Chloride	Effected	No Effect
* Light Alkaline Solution	Slight Effect	Slight Effect
* Urine	Effected	No Effect
* Blood	No Effect	No Effect
* Cleaning Preparation, juices, oils, tea, coffee, mayonnaise, vinegar, butter, shortening, etc.	No Effect	No Effect
* Gasoline	No Effect	No Effect
* Trichloroethylene	No Effect	No Effect
* Highly Industrial Atmospheres Penetration (1 Mil=0.001 inch)	.2 Mils pr/yr	.2 Mils pr/yr

This short table only applies to **solid** zinc strip. However, approximately 80% of all strips used have **only** a zinc top and a galvanized steel base. The galvanized sheet metal base has very little structural strength and is attacked by most all elements. TESCO ALLOY DIVIDER STRIP is the strip to use and specify.

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TRUESDAIL LABORATORIES, INC.

CHEMISTS - MICROBIOLOGISTS - ENGINEERS

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November 12, 1975

Laboratory No. 754212

Tesco Products Inc.
7312 North Bellaire Ave.
North Hollywood, California 91605

Attention: Mr. Lombardo

Re: Use of Tesco Aluminum Alloy Divider Strip in Terrazzo Flooring

The writer, in his capacity as a corrosion specialist and metallurgical engineer, was requested to evaluate the effect of substituting Tesco aluminum alloy strip for zinc alloy strip as dividers in Terrazzo flooring. Attached are copies of background data for your use. I understand that your organization has been questioned regarding your substitution of Tesco aluminum strip in Terrazzo flooring in place of the zinc strip specified by the designers.

The corrosion resistance of aluminum and zinc in the presence of alkaline building materials is very similar and in the writer's experience can be substituted on a one-to-one basis. The wear resistance of Tesco aluminum strip and zinc strip is essentially the same. The initial metallic coloration when bright is very close and differences in coloration could only be detected if a strip of

zinc and of Tesco were imbedded adjacent to each other. The stain resistance and types of stain formed during curing and subsequently during service are very similar in coloration and uniformity.

As you will observe in the Xeroxed material furnished on the resistance of aluminum alloy to corrosion (page 929) the action of concrete, plaster, mortar and cement results in no more than superficial etching of embedded alloys, most of which occurs during the initial curing period. The superficial etching results from a dissolution of the natural oxide film on the metal surfaces adjacent to the alkaline building material. However, a new complex film is formed which protects the metal against further corrosion in service.

The above discussion of aluminum alloys and contact with alkaline building materials such as concrete, plaster, mortar and cement applies equally well to zinc alloys. Some gas evolution can occur where the divider strips contact the concrete in Terrazzo flooring for either Tesco aluminum alloy or zinc alloy strips. Since visible porosity of the cement adjacent to the divider strip must not be present in the finished Terrazzo flooring, it is standard practice to lacquer either the zinc alloy or the aluminum alloy strips so that there will be no contact between the strips and the concrete during the curing period.

In conclusion, the writer has had and the literature describes extensive experience of the use of aluminum in the contact with concrete, plaster, mortar and cement without deleterious effect. Terrazzo flooring with aluminum strips has been used successfully for many years in many applications. To the writers knowledge, either zinc alloys or Tesco aluminum alloy are equal in all respects for use as a divider strips in Terrazzo flooring.

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Charles H. Avery, B.S.
Registered Professional Engineer
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CHA: dh
Enclosures