Mebac® Nosings and Stair Treads



BORDEN®



For more information on IKG Borden products call or write the sales office below for our brochure on:

- IKG Borden Grating
- IKG Deck Span® Safety Grating
- IKG Borden Grid Steel Floor Armor
- IKG CorGrate® Fiberglass Grating
- IKG CorGrip® Fiberglass Handrail
- IKG Borden Mebac® Slip Resistant Surfaces
- IKG Mebac® On-Site
- IKG Greulich Bridge Flooring Systems
 IKG Borden Safe-T-Grid® Aluminum Grating

a harsco company

Executive Offices:

IKG INDUSTRIES Harsco Corporation One Mack Centre Drive Paramus, NJ 07652 201-261-5600 1-800-969-5600 Fax: 201-267-0067 Website:

www.ikgindustries.com

P.O. Box 549 Leeds, AL 35094 205-699-5008 Fax: 205-699-5007

P.O. Box 449 Madera, CA 93639 800-545-4463 Fax: 209-673-1492 29 Vanderburg Rd. Marlboro, NJ 07746 732-683-9055 Fax: 732-845-3086

1400 Metals Drive Charlotte, NC 28206 800-356-5062 Fax: 205-699-5007

2020 West 21 Street South Tulsa, OK 74107 800-324-8417 Fax: 281-457-6054

P.O. Box 100930 Nashville, TN 37224 800-467-2345 Fax: 615-244-2235

P.O. Box 310 Channelview, TX 77530 281-452-0709 Fax: 281-457-6054

1033 Herman St. Nashville, TN 37208 615-782-4700 Fax: 615-726-2023

Canada

Canada 4325 Steeles Avenue W. Downsview, Ont. M3N 1V7 416-739-9597 Fax: 416-739-8309

GREULICH"

R.D. 2, Route 910 Cheswick, PA 15024 412-828-2223 Fax: 412-828-4103

IS IS BORDEN a harsco company

KE DECK SPAN' a harsco company



Associate Member Steel Service Center Institute



Nosings that don't crack.

Save yourself the agony of replacing broken nosings with IKG's <u>NEW</u> aluminum extruded nosings with an integral, skid resistant, Mebac[®] surface.

Who is IKG Borden?

IKG Borden's roots extend back to the beginnings of the Irving Subway Grating Company, just after the turn of the century. In 1969, IKG Industries was formed by the merger of the Irving, Kerrigan, and Gary Companies. In 1986, IKG assumed its present shape with the acquisition of the former Borden Metal Products Company. Today, IKG Borden is the leading U.S. manufacturer of grating products with modern, efficient plants and service centers nationwide.

This catalog introduces one of our newest specialty products, Mebac surfaced aluminum stair nosings and treads, and also covers our entire line of Mebac anti-slip flooring products.

IKG Borden is a division of Harsco Corporation, one of the 1,000 largest corporations in the U.S.A.

IKG Anti-Slip Surfaces

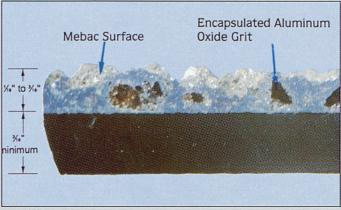
For many years IKG Borden has produced a wide range of anti-slip flooring products. One of the earliest was serrated bar grating. More recently, our premium anti-slip product has been Mebac surfacing, applied to many types of metal substrates, including plate, grating, and grating tread nosings in both steel and aluminum.

The nosings introduced in this catalog are an expansion of our product line. Now, there is a Mebac nosing for every application, including new construction, retrofit, renovation or replacement of either grating or concrete stair treads.

What Is Mebac*?

Mebac is a unique patented process for bonding aluminum oxide grit to a metal substrate with molten metal.

On our aluminum nosings, Mebac surfaces are formed of aluminum oxide particles encapsulated by molten aluminum which bonds to the aluminum substrate. Mebac aluminum surfaces are also offered on many types and grades of steel, including stainless. Mebac steel on steel is an option for other applications.



*Patented

Slip resistance far in excess of .50 C.O.F. (OSHA minimum)

A coefficient of friction of .50 is considered by OSHA to be a safe surface on which to walk or work. Mebac surfaces exceed this value by a substantial margin, even when coated with brake fluid or antifreeze.

Proven durability

Both in the field and in the lab, Mebac has demonstrated exceptional long-term bond strength and wear resistance.

Mebac was originally offered on plate only, and some of the first installations were on plate treads at New York City's Grand Central Station close to 20 years ago. They are still in use today, with no noticeable wear.

We have also subjected this product to a wide range of closely controlled wear comparison laboratory tests which confirm our field experience with the product. Complete results available on request.

Advantages of Mebac Anti-Slip Stair Nosings and Treads

- Low Cost. Mebac surfaced aluminum nosings are the most economical stair nosings you can buy today. They offer the proven long term wearability of their Mebac surface in combination with a metal base that will not crack or corrode.
- High durability. Aluminum nosings are not brittle like
 cast iron or cast aluminum and will not crack. They are
 highly corrosion resistant as well. Mebac surfaces have
 proven to have exceptional wear resistance and
 bond strength, and contain no resin or glue that can
 deteriorate and fail.
- Immediate availability. Most items are stocked and can
 be shipped on a same-day basis. Because of the light
 weight of aluminum, parts can be shipped via overnight
 air or UPS for next day or second day delivery at reasonable cost.
- Safety. Mebac surfaces offer the highest coefficient of friction available on metal today and give you the high visibility contrast between the riser and front edge of the tread that may be required by building codes.
- Flexibility. Nosings are available with either anchor clips, extruded anchors, or pre-drilled holes to cover all possible installation requirements.

Mebac[®] Flooring

Welded Steel and Aluminum Bar Grating Treads

Recommended Bearing Bar Sizes

Steel	Treads	5	Aluminum Bar Treads			
Bar	Max.	Length	Bar	Max. Length		
Size	Plain	Serrated	Size	Plain	Serrated	
³⁄4"x ³⁄16"	2'2"	_	1" x ¾6"	2'0"	_	
1" x ³ ∕16"	3'0"	2'6"	1 1/4" x 3/16"	2'8"	2'4"	
1 1/4" x 3/16"	4'0"	3'5"	1½" x ¾6"	3'6"	3'1"	
1½" х ¾6"	5'3"	4'7"	1¾" x ¾6"	4'7"	4'0"	

The tread lengths indicated in the adjacent tables are based on a 300 pound design load, plus 33½% impact applied on the centerline of the span and distributed over the nosing and 4 bearing bars. For alternate loading conditions, our engineering department should be contacted.

Aluminum Plank Treads

Load Table (Maximum Fiber Stress for 12,000 lbs. Per Sq. In.)

	Span In Feet — Load in Lbs. Per Linear Foot									
Tread Width	1'0"	1'6"	2'0"	2'6"	3'0"	3'6"	4'0"	•		
3"	2736	1216	684	437	304	223	171	3'5"		
4"	2960	1315	740	473	328	241	185	3'8"		
6"	3240	1440	810	518	360	264	202	4'0"		
7½"	3296	1464	824	527	366	269	206	4'1"		
9"	4080	1813	1020	652	453	333	255	5'1"		

^{*}Max. length of a tread to support a concentrated load of 400# at midspan distributed over the full width of the tread.



Renovation Mebac Nosing

A fast and efficient way to repair old treads or treads with broken cast nosings. Photo shows cut-a-way of an actual welded steel grating tread with a cast aluminum abrasive nosing which was cracked and worn being quickly and effectively renovated with IKG's renovation nosing attached to tread with a countersunk screw and inverted saddle clip.

SAFE GRID Aluminum Grating*



This product is one of our latest grating innovations. Safe-T-Grid bearing bars are a specially designed and manufactured, T-bar aluminum extrusion. This is a highly efficient structural shape that yields exceptionally high load bearing ability for the amount of aluminum used. The broad top flange of the bearing bars offer an excellent surface for the application of Mebac. The result is a high strength, lightweight, and economical product that is both safe and comfortable for walking and standing.

Ideal for entrance mats, pedestrian walkways, and trench grates in high pedestrian traffic.

Mebac[®] Ladder Rungs



For that extra measure of ladder climbing safety, especially in locations where ladders may be exposed to water or lubricants, Mebac ladder rungs are the answer. For new installations, we offer Mebac surfaced solid rungs in $\frac{3}{4}$ " or 1" squares. For existing ladders, we can supply $\frac{3}{4}$ " or 1" Mebac surfaced formed channel which fits snugly over existing rungs and is then permanently welded in place. For either style, simply specify desired finished length, or order 10'0" stock length.

Mebac[®] Nosings

Mebac is a metallized grit surface and does not employ glue or resin, epoxy or otherwise, as a binder.

For General Purpose Use

Nosings that don't crack!

For many years, owners have been faced with the problem of replacing cracked or broken cast iron or cast aluminum nosings. IKG utilizes a durable wrought substrate, 6063 aluminum extrusion, that is not susceptible to breaks and cracks.

An integral aluminum and hard grit surface is factory applied to the aluminum extruded nosing.



Nosings for Architectural Use

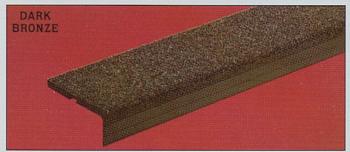
Architectural Finishes

When specified, IKG can provide Duranodic or anodized surfaces. Since the Mebac surface employs aluminum to encapsulate the grit, it will accept anodizing in much the same way as the metal of the nosing itself, except the finish is not as smooth and consistent. To be certain of the aesthetics of the finished product and a satisfactory result, we recommend that you request samples for approval prior to placing your full order. Virtually all other aluminum architectural finishes are also available on special order.

Caution: Duranodic and anodized finishes on the walking surface of Mebac® cannot be guaranteed. These finishes may wear off in time depending upon the activity or frequency of pedestrian traffic. However, the finish on the face of the nosing should have the same wearing quality as Duranodic or anodized finishes in other locations.



For new construction or wherever wet concrete may come in contact with the nosing, protective removable tape can be provided to protect the metal finish during construction.







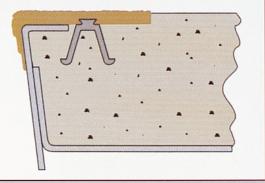
How to Specify

Stair nosing shall be IKG MEBAC nosing type _____A-4C___, as manufactured by IKG Industries. The nosing shall consist of extruded 6063 aluminum alloy with factory applied Mebac - aluminum oxide grit encapsulated with molten aluminum. Finish to be _____mill finish___, and furnished with ____IKG extruded component anchors__ [IKG extruded component anchors] for permanent embedment or [drilled countersunk holes] for fastening nosing to embedment clips for easy removal or replacement.

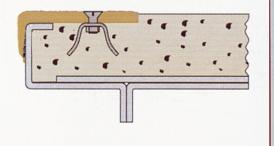
Mebac® Aluminum Nosings

or Renovation

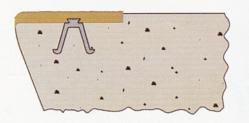
Filled Pan Sloped Riser



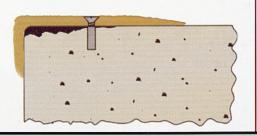
Filled Pan Straight Riser



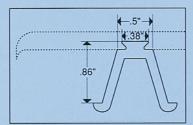
Poured or Precast Construction

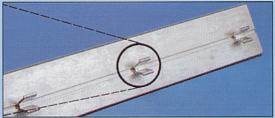


Renovation



Extruded Aluminum Anchor Clip and "Easy Anchor"





Integral anchor properly spaced to ease anchoring in wet concrete-Positive anchorage-less tendency for stress cracking of concrete at bottom of anchor.

FASTENERS



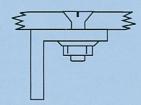
Easy Anchor 2 in. Wide integral

Aluminum Anchor. Spaced 2 in. from ends and 14 to 18 in. on centers.



Steel Clip Steel Wing Anchor Clip for

removable nosings.



Screws/Bolts Standard bolts, nuts or screws for special applications.

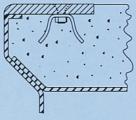
Countersunk Holes - 1/4 in. countersunk holes are supplied as standard for types A-3C, A-4C, B-3C, B-4C, C-3C, C-4C and the 7 in. renovation nosing RS7. Holes are approximately 2 in. in from ends of nosing with additional countersunk holes on 12 to 16 in. centers as required.

Length - Specify length.

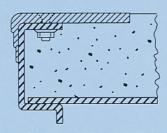
Finish - Standard finish is Aluminum Mill finish as manufactured. For special finishes of Anodized or Duranodic please specify.

Protective Tape - To protect special finish from wet concrete during construction, specify protective tape.

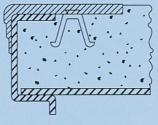
Installation



Standard drilling with wing anchors, bolts and nuts.



Standard drilling with bolt and nut.



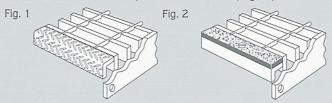
Integral anchors for fresh concrete.

Treads

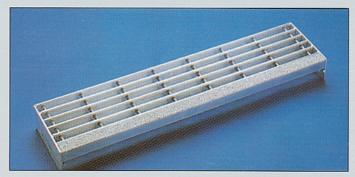


Welded Grating Tread with Mebac® Nosing

Standard checker plate nosings have been used for many years with Welded steel grating treads. These give little or no added slip resistance over plain steel plate (Fig. 1). For galvanized treads, cast iron or cast aluminum nosings have commonly been used. These have somewhat better slip resistance than checker plate, but are brittle and prone to cracking under normal pedestrian stress (Fig. 2).



Now, Mebac welded grating treads combine the superior slip resistance of Mebac with the high durability of steel, using a one piece Mebac surfaced nosing which will not crack or break (Fig. 3). Since both the nosing surface and the tread are steel, the entire tread is easily galvanized after fabrication.



Aluminum Grating Tread with Mebac Nosing

IKG's extruded one-piece aluminum nosing (right), supplied either separately for your fabrication, or on aluminum grating stair treads that we make, eliminates the need for cast aluminum nosings. Its one-piece construction is less expensive, and it should never require replacement because of cracking or breaking.



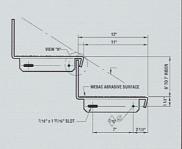
Aluminum Mebac Nosing

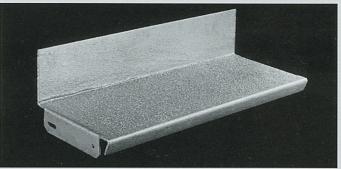


Aluminum Plank Mebac® Tread

Mebac® Z-Tread (patented)

Mebac Z-Treads give you a fast, economical way to design and construct a steel staircase with built-in, long term slip-resistance. A clean, one-piece design provides a highly slip resistant walking surface, nosing, riser and mounting plates all in a single piece of steel, with no welds to crack or rust over time.





Formed Steel Mebac® Tread

Poured or Precast Concrete or Terrazzo and Pan Stairs in New Construction

3 or 4 in. TYPE A-3C FILLED PAN SLOPED RISER 1.25 TYPE A-4C 1/16 to 3/16 Mebac Surface TYPE A-3E • .250 in. 6063 aluminum with 1/16 to 3/16 in. integral grit Mebac® metalized surface on top surface only. Vertical leg (face) is bare TYPE A-4E aluminum, See facing page for typical detail of integral extruded FILLED PAN STRAIGHT RISER TYPE B-3C 3 or 4 in. TYPE B-4C 1.25 1/16 to 3/16 Mebac Surface TYPE B-E3 • .250 in. 6063 aluminum with 1/16 to 3/16 in. integral grit Mebac® metalized surface on top surface only. Vertical leg (face) is bare TYPE B-4E aluminum See facing page for typical detail of integral extruded TYPE C-3C 3 or 4 in POURED OR PRECAST CONSTRUCTION TYPE C-4C TYPE C-E3 1/16 to 3/16 Mebac Surface TYPE C-4E .250 in. 6063 aluminum with 1/16 to 3/16 in. integral grit Mebac® metalized surface See facing page for typical detail of integral extruded 3.757 qn7 3.75" or 7" RENOVATION 1.187 1/16 to 3/16 Mebac Surface TYPE RSP 3.75 or RSP-7 • .187 in. 6063 aluminum with 1/16 to 3/16 in. integral grit Mebac® metalized surface on top surface only. Vertical leg (face) is bare aluminum,

Supplied with countersunk holes only.