BAC®

CORROSION CONTROL

PRODUCTS CATALOGUE

COATINGS

BAC®
CORROSION CONTROL

COATINGS CATALOGUE INDEX

HANDY CAPS

DATASHEET 4.1

HANDY CAPS

Royston Handy Cap IP and Handy Cap XL IP provide quick, field applied corrosion protection to anode and test wire leads welded onto metal substrates. The Handy Cap IP and XL IP are made using a durable plastic sheet that has a dome filled with a moldable compound to assure complete encapsulation of the item being protected. The sheet is then capped with an adhesive layer for easy and permanent application.

SUBSTRATE COMPATIBILITY

Steel, Stainless Steel, Ductile Iron, Other Metals, FBE, Epoxy, PE, PP RECOMMENDED USE
Sealing the welded connection of a anode or test wire to a metal substrate.

These products are ideal in limited access and key hole applications.

The Handy Cap IP and XL IP use Tapecoat's grey elastomeric adhesive with integrated primer. This exclusive formulation allows for faster application as there is no need to apply a separate primer when application temperatures are above 40°F. The Handy Cap XL IP has a similar construction as the IP, but
it is designed for larger wires and welds areas. The Handy Cap IP and XL IP can be applied by hand or using the Royston Key Hole Tool.

DESCRIPTION

SURFACE PREPARATION SSPC SP-3 Power Tool Cleaning or
SSPC SP-6/NACE No. 3 Commercial Blast Cleaning Royston Handy Cap IP and Handy Cap XL IP have an integrated primer to allow for quick, easy and permanent adhesion. When required by the job specification or when application temperatures are below 40°F, a 4 mil WFT of Tapecoat Omniprime may be applied to the pipe surface to ensure the required bond.

OPTIONAL PRIMER

SAFETY Refer to Material Safety Data Sheet: MSDS-Handy Cap IP APPLICATION Refer to Application Guidelines: AG-HANDY-CAP

BAC®
CORROSION CONTROL

BAC Corrosion Control Ltd
Stafford Park 11 • Telford • TF3 3AY
United Kingdom

T: +44 (0) 1952 290 321
E: sales@bacgroup.com
W: www.bacgroup.com

HANDY CAPS

Product data is provided below for both the standard IP and XLIP Handy Cap Models

DATASHEET 4.1

HANDY CAPS

Property	Handy Cap IP		Handy Cap XL IP		Test Method
Overall Size	4″ x 4″	(101 mm x 101 mm)	5″ x 5″	(127 mm x 127 mm)	
Plastic Sheet Size	2.75″ x 4″	(70 mm x101 mm)	2.75″ x 4″	(70 mm x101 mm)	
Plastic Dome Height	0.8″	(20 mm)	1.5″	(38 mm)	
Plastic Dome Diameter	1.65″	(42 mm)	1.75″	(44 mm)	
Total Thickness	175 mils	(4.44 mm)	190 mils	(4.83 mm)	ASTM D1000
Sheet Thickness	10 mils	(0.25 mm)	10 mils	(0.25 mm)	ASTM D1000
Adhesive Thickness	165 mils	(4.19 mm)	180 mils	(4.57mm)	ASTM D1000
Adhesion to Steel	10 lb/in	(1.75 N/mm)	10 lb/in	(1.75 N/mm)	ASTM D1000
Service Temperature Range -	20°F to +140°F	-29 to +60°C	20°F to +140°F	-29 to +60°C	

Product Pieces Per Case		Case Weight
Handy Cap IP	20	5lbs (2.27kgs)
Handy Cap XL IP	10	6lbs (2.73kgs)

BAC®
CORROSION CONTROL
MEMBER OF MIDROC EUROPE

BICASEAL

DATASHEET

BICASEAL

Bicaseal is a two-part putty mix, supplied as individually wrapped sticks of resin and hardener, which are different colours to help with complete mixing.

Bicaseal has a usable life of 60 minutes at 20° with an average setting time of 90 minutes.

- Each 0.5kg pack of Bicaseal contains two sticks each of resin and hardener, individually wrapped.
- Great for repairs to wood, metal, ceramic objects.
- The joint made between most materials will have good mechanical strength.
- Water immersion, or the presence of water, will not prevent setting

Mixing

Equal lengths of resin and hardener should be cut from the sticks and worked together by hand until a uniform colour is achieved. It is important that the equal amounts of resin and putty are mixed together, as incorrect quantities will adversely affect the compound. The putty is easy to mix and starts to set as soon as mixed.

Applications

Cable Terminating

Bicaseal can be used for capping ends of metal or PVC/XLPE sheathed cables and for sealing the crutches of PVC/XLPE cables. It can be used to make a 'wipe' between a service box and a PVC/XLPE sheathed cable. Neat plumbs can be formed with this product.

Technical Data

Solid setting putty becomes a hard mass after approximately 4 hours. It should ideally be left, without movement, overnight to fully cure. At reduced ambient temperatures, the setting time will increase and the mixing of the two components will become more difficult.

Before application of the putty mix, ensure that the surfaces are clean and free from oil or lubricants, and where possible roughen the surfaces to aid adhesion.

- Disposable plastic gloves should be worn during both mixing and application

BAC®
CORROSION CONTROL

BAC Corrosion Control Ltd
Stafford Park 11 · Telford · TF3 3AY
United Kingdom

T: +44 (0) 1952 290 321
E: sales@bacgroup.com
W: www.bacgroup.com

ZINC LAYER ANODE

DATASHEET 6.13

ZLA ANODE

Zinc Layer Anode or ZLA is a laminate zinc anode. The presence of chlorinated salts inside the concrete can constitute a danger to the passivation layer (protective oxide layer) present on the carbon steel reinforcement of the concrete. Any variation in thickness of the concrete covering of the reinforcement, the quality of said covering and the concentration of chlorides around the reinforcement also create similar corrosive conditions. In such conditions local corrosion piles will form in areas called anodic. Other areas of the armour, in which the situation is relatively less corrosive and aggressive, remain passivated (by a protective layer of oxides). These areas are called cathodic.

The simultaneous presence of anode and cathode areas gives rise to electrochemical reactions (redox reactions), if the distance between an anode and a cathode is relatively small. In the anodic areas, these electrochemical reactions convert the steel of the armature into iron oxides (rust).

Those corrosion products (rust) that are formed can have a volume from 5 to 10 times that of the original steel armour. For this reason, the stresses created inside the concrete can also lead to cracking and shattering of the cement roof. The loss of steel and concrete could also weaken the structure and pose a safety hazard.

ZLA has therefore been designed to operate as an additional anode that replaces all the anodic areas of the reinforced concrete structure. It is applied to the surface of the concrete. The zinc layer is electrically connected to the steel armor. In doing so, the electric circuit closes, as the electric current passes through the layer of adhesive and concrete by ionic conductivity (the two materials belong to the so-called electrolytes).
Since zinc has a natural potential that is more electronegative than that of the steel armature, when applied it becomes the anode and forms a new corrosion pile of which the armature can only be the cathode. In this way, the corrosive process inside the concrete is transferred to the zinc layer, avoiding future detachment and cracking of the concrete itself.

BAC®
CORROSION CONTROL

BAC Corrosion Control Ltd
Stafford Park 11 · Telford · TF3 3AY
United Kingdom

T: +44 (0) 1952 290 321
E: sales@bacgroup.com
W: www.bacgroup.com

ZINC LAYER ANODE

DATASHEET 6.13

ZLA ANODE

ZLA consists of a pure zinc sheet (> 99.95%) with a thickness of 250 microns (but variable according to operational and durability needs) coupled to an ionic conductive adhesive electrolyte and protected by a polypropylene interlayer that preserves it. from any contamination (overall thickness: 1.2 mm).
ZLA is applied directly to the concrete surface: an electrical connection is created between the zinc surface and the concrete reinforcement through a metal cable.

From the moment the electrical connection between the zinc sheet and the reinforcement in the concrete closes, a current flow is established and ZLA begins to self-wear.

The high conductivity of the ZLA foil ensures uniform distribution of the cathodic protection current and facilitates the achievement of current sharing requirements.

After cutting ZLA to the appropriate length, it can be applied to the concrete surface by hand pressure. The concrete surface must be structurally intact and free from dust or other residues. Remove the interlayer that protects the gel and at the same time press ZLA on the affected surface using, for this operation, a rubber hammer for the entire length of the sheet. Seal the free ends and proceed with the finishing.

ZLA is supplied in rolls of 250 mm in width and 25 m in length. After application, if required for aesthetic reasons, ZLA can be provided with a finishing coating of any color according to specific customer requests. The system check can be performed (if required) according to the UNI EN ISO 12696 standard

BAC®
CORROSION CONTROL

BAC Corrosion Control Ltd
Stafford Park 11 · Telford · TF3 3AY
United Kingdom

T: +44 (0) 1952 290 321
E: sales@bacgroup.com
W: www.bacgroup.com

ZINC TAPE ®

DATASHEET

ZincTape® consists of a high pureness zinc-tape (> 99,95% of the chemical mass of zinc) with a nominal thickness of 0,08 mm. This tape is supplied with a 0,025 ÷ 0,40 mm thick adhesive, which can resist continuous operating temperature of 80° C and which reacts under electro-conductive pressure. The adhesive layer is covered by a siliconised paper, which protects the band from getting damaged or polluted until the tape is applied.

ZINC TAPE ®

The product is available in two forms:

- Shapes, based on the client's needs
- Rolls, whose width and length are shown in the table below

Width mm	10	15	20	25	30	35	40	50	70	80	90	100	150	200	300
Length m	50														

TECHNICAL DESCRIPTION

ZincTape® is designed to cover the surface of iron, steel, aluminium and light metals in order to protect them from corrosion. This is achieved by pressing it on the surface that needs to be protected from corrosion. This method is commonly known as "Laminar Zinc Coating" The adhesive coat, which is applied only on one side of the zinc tape, consists of a matrix of adhesive and a percentage of zinc powder. Through the addition of zinc powder we have achieved the most important effect, which is making the adhesive itself electro conductive. This process allows the adhesive to create an electrical couple between the surface that needs to be protected and the zinc tape, so that the zinc can act as galvanic anode.

As a consequence of the unique manufacturing process and the high pureness of the employed zinc, the band has an absolutely homogeneous and isotropic microstructure, which cannot be found in other protection systems. For this reason, any pitting or any form of local corrosive attacks are avoided.

Therefore we can state that, owing to the following features:

•stopping any direct corrosion;
•active anticorrosive protection thanks to the electrical contact between the surface to be protected and the zinc layer, which, in the presence of an electrolyte, reacts as a sacrificial anode;
•presence of an adhesive layer, anchored on the surface to be protected, which is an additional defense against corrosion;
The coating with our zinc layer assures a cathodic protection of metallic surfaces for a time, that, in most cases, is equal or longer than the lifetime of the structure to be protected.

BAC®
CORROSION CONTROL

BAC Corrosion Control Ltd
Stafford Park 11 · Telford · TF3 3AY
United Kingdom

T: +44 (0) 1952 290 321
E: sales@bacgroup.com
W: www.bacgroup.com

ZINC TAPE ®

DATASHEET

ZINC TAPE ®

CATHODIC PROTECTION

Through our zinc coating on the iron surface passive and active protections can be achieved:

•a passive protection due to the homogeneity and isotropy of the
•coating and to the adhesive, which sticks well avoiding infiltration;

•an active protection because the difference of potential between the two surfaces decreases. The potential of zinc is very similar to that of the light alloy and so the zinc tape is the sacrificial anode instead of the light alloy.

The zinc tape must be stuck to the nobler metal. Should there be doubts concerning the electrolytic potentials of the materials, it is advisable to cover both the surfaces with the zinc tape, so that any corrosion attack can be avoided.

APPLICATION FIELDS

Lamp Post Lamp post are protected by ZincTape, on the base that is the critical part of the surface. The coating is usually carried out by qualified applicators or by the supplier of metallic poles.

Automotive Protection of window borders, chassis, roofs and other areas where water can seep through. For hinges and car doors or other particular hot spots ZincTape can offer special shapes based on the client's needs and made on purpose to avoid corrosion problems.

Oil & Gas Pipes and out-of-ground pipes. Sea platforms, harbour structures, wharves, piers and off-shore platforms Above-ground apparatus and components of refineries.

BAC®
CORROSION CONTROL

BAC Corrosion Control Ltd
Stafford Park 11 · Telford · TF3 3AY
United Kingdom

T: +44 (0) 1952 290 321
E: sales@bacgroup.com
W: www.bacgroup.com

Infinity POWER

BAC®
CORROSION CONTROL

BAC CORROSION CONTROL LTD
Stafford Park 11, Telford, Shropshire, TF3 3AY, UK

T: +44 (0) 1952 290321
F: +44 (0) 1952 290325
E: sales@bacgroup.com

www.bacgroup.com

Member of
MIDROC

cpa · IC · NACE · bmtrada · bmtrada · bmtrada · UKAS