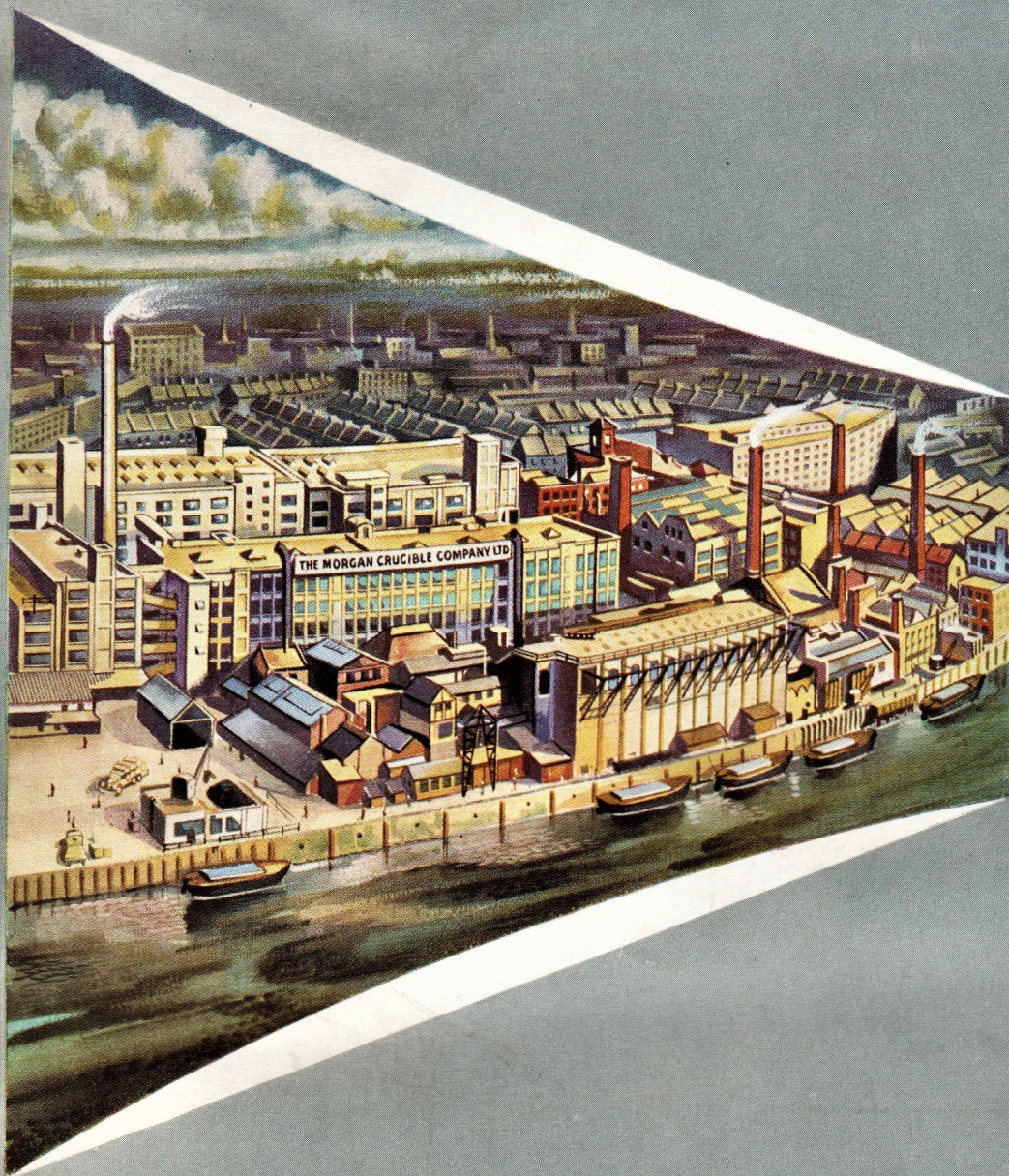


MORGANITE



The Morgan Crucible Company Ltd.

BATTERSEA LONDON ENGLAND.

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SPECIAL GRADE FOR LOW ARC VOLTAGES

Link HLP is a high intensity copper coated positive carbon which has been designed for use where the output voltage from the rectifier or generator is low, permitting little or no ballast resistance in the arc circuit. Typical operating conditions are:—

8 mm diameter minimum 42 amps at 25 arc volts.
maximum 60 amps at 35 arc volts.

9 mm diameter minimum 62 amps at 32 arc volts.
maximum 75 amps at 38 arc volts.

Link HLP can also be used with complete satisfaction on higher supply voltages. In such conditions

the lowest permissible currents will be higher than the minimum figure quoted above and longer arc gaps with correspondingly higher arc voltages are to be preferred.

If when using this grade the current falls below the normal value for carbons of the same diameter in other grades, the current regulator need not be adjusted because Link HLP has been designed to give maximum light with reduced carbon consumption in these conditions.

Link HIN negatives should be used with Link HLP positives.

ALTERNATING CURRENT CARBONS

Link ACE A high intensity copper coated grade. It incorporates all the advantages of stability and low burning rate associated with its predecessor Link ACC. In addition it has a wider current range and increased light output.

Diameter	Amperes
6 mm	40—55
7 mm	55—70
8 mm	70—90
9 mm	90—100

Link ACZ A copper coated high intensity carbon which gives a good light at current densities lower than those necessary for Link ACE.

Diameter	Amperes
7 mm	35—40
8 mm	40—45
9 mm	45—50
10 mm	50—55

Link ACT A high intensity copper coated grade designed specially for the "TRIARC" 3-phase arc lamp.

Diameter	Amperes
7 mm	40—50

Link ACL A cored uncoppered carbon for A.C. Spotlights and Stage Arcs.

Diameter	Amperes
12 mm	25—30
14 mm	30—40
16 mm	40—50
18 mm	50—60
20 mm	60—70
22 mm	70—80
25 mm	80—95

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HIGH INTENSITY COPPER COATED CARBONS

To achieve a high light output with economical carbon consumption over the very wide range of operating conditions in which high intensity carbons are used to-day, we offer two complementary grades of positives, Link HMS and Link HRS.

Link HMS is designed for high current densities. It gives an exceptionally high light output and has a low burning rate which makes it a very economical grade in service.

Link HRS operates at lower current densities than Link HMS and is particularly suitable for cinemas in which the high light output of Link HMS is not required.

To obtain the most satisfactory performance Link HRS should generally be used at currents within 10 amperes of the maximum.

Link HIN negatives should be used with both grades of positives. For most currents alternative diameters are available and the following points should be considered when choosing the size to use:—

- A smaller diameter negative produces a more stable arc.
- A larger diameter negative burns more slowly.
- A lamp with a fixed feed ratio calls for a negative carbon which will burn at the correct rate relative to the positive carbon.

Link HRS Positive	Link HIN Negative	Maximum Current
Diameter	Diameter	Amperes
6 mm	5 and 5.5 mm	40
7 mm	6 mm	47
8 mm	6, 6.5 and 7 mm	58
9 mm	7 and 7.5 mm	75
10 mm	7 mm	75
10 mm	7.5 mm	80
11 mm	7.5 mm	85
11 mm	8 and 9 mm	90

Arc Gap. For maximum efficiency the arc gap should be approximately equal to the diameter of the positive carbon. However, if with this gap it is not possible to maintain the required current, a slightly shorter arc gap is permissible.

Current. When changing from one grade of carbon to another the current may vary although no alteration has been made to the arc gap, ballast resistance or rectifier tapplings. It is therefore important to ensure that the current does lie within the range of the grade in use.

Link HMS Positive	Link HIN Negative	Current Range
Diameter	Diameter	Amperes
6 mm	5 mm	37—45
7 mm	6 mm	45—55
8 mm	7 mm	60—70
9 mm	7 mm	70—80

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LOW INTENSITY CARBONS

Link LIP cored positives and **Link LIN** negatives with copper coated cores form a low intensity trim which combines a good steady light with a low burning rate.

To reduce carbon costs **Link LXN**, a solid uncoppered negative, may be used in place of **Link LIN**. Both negatives may be used at the same current densities but when the positive carbon is operating at its maximum rating a **Link LIN**

negative will give greater stability. The average consumption ratio between **Link LIP** and either grade of negative is 1:1.

Link LCN is a solid copper coated negative which may be used in place of **Link LIN** in lamps where both positive and negative carbons are in axial alignment. Its current rating is higher than **Link LIN** and smaller carbons may be used, thus reducing mirror obscuration and improving the light output.

Link LIP Positive	Link LIN Negative	Link LXN Negative	Link LCN Negative	Maximum Current
Diameter	Diameter	Diameter	Diameter	Amperes
10 mm	7 mm	7 mm	5 mm	20
11 mm	8 mm	8 mm	5.5 mm	25
12 mm	8 mm	8 mm	6 mm	30
13 mm	9 mm	9 mm	6.5 mm	35
14 mm	10 mm	10 mm	7 mm	40

SPOT LIGHT AND STAGE ARC CARBONS

Link SLP is a cored uncoppered carbon designed for use in D.C. Spotlights and Stage Arcs. At high current densities it should be used with **Link SCN** which

is a cored and copper coated negative. At low current densities this positive will give an excellent performance when used with **Link SLN**, a solid uncoppered negative.

Link SLP—Positive	Link SLN—Negative	Link SCN—Negative	Maximum Current
Diameter	Diameter	Diameter	Amperes
14 mm	10 mm	—	25
16 mm	11 mm	—	30
18 mm	12 mm	—	35
18 mm	—	10 mm	55
20 mm	13 mm	—	40
20 mm	—	11 mm	65
22 mm	14 mm	—	45
22 mm	—	12 mm	80
25 mm	—	13 mm	105
25 mm	—	14 mm	110

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UNCOPPERED HIGH INTENSITY CARBONS

Link HIP is designed for use in arc lamps which have the positive electrical contact situated close to the crater of

the positive carbon. It should be used with Link HIN negatives.

Link HIP Positive	Link HIN Negative	Maximum Current
Diameter	Diameter	Amperes
9 mm	7 mm	75
9 mm	8 mm	85
10 mm	9 mm	100
11 mm	9 mm	115
13.6 mm	11 mm	150

SPECIAL GRADES FOR PANORAMIC SCREENS

The mammoth screens now used for Drive-in theatres, CinemaScope, VistaVision, etc., demand a light intensity greatly in excess of that which can be produced by standard grades of carbons. The following copper coated and uncoppered grades suitable for use at currents in excess of 80 amperes have been designed to satisfy this need. A range of arc currents is indicated for each trim but because a high light output is of prime importance it is advisable to operate at the top of the current range. The intense heat produced at these high currents may make it necessary to use heat filters to avoid excessive heat on the film.

Link DDD A copper coated positive for use in high power mirror arcs.

Link H3D An uncoppered positive carbon for use in lamps which have the positive electrical contact close to the crater of the positive carbon.

Link HIN Copper coated negatives.

Link HDN Copper coated negatives.

Current	Copper Coated Positive	Uncoppered Positive
80—95 amps	{ Link DDD 9 mm positive Link HIN 8 mm negative	{ Link H3D 9 mm positive Link HIN 8 mm negative
95—110 amps	{ Link DDD 10 mm positive Link HIN 9 mm negative or Link HDN 8 mm negative	{ Link H3D 10 mm positive Link HIN 9 mm negative
110—130 amps		{ Link H3D 11 mm positive Link HIN 10 mm negative
185—190 amps		{ Link H3D 13.6 mm positive Link HDN 12 mm negative

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CINEMA CARBONS

During recent years there have been tremendous advances in cinema projection techniques which demand ever better projection arc carbons if full advantage of them is to be taken. Larger screens require more light, new aspect ratios require a better distribution of light, and light of the correct quality must be available to bring out the full beauty of colour films.

For the past 20 years film studios in England, The British Commonwealth and in Europe have used Morganite carbons as the standard of colour for film production. Now that the special materials required are more readily available, the same standards of colour have been applied to the whole range of Morganite cinema projection arc carbons and every carbon is rigidly controlled to this standard.

In using Morganite carbons you may therefore be assured that not only will they give all the light required for modern projection systems but that they are also

COLOUR CORRECT

