IG Steel Lintels

IG Lintels
Over 65 years of lintel experience in design, innovation, and specification.

Product Standards

EN 845-2
Specification for ancillary components for masonry: Lintels

EN 846-9
Methods of test for ancillary components for masonry. Determination of flexural resistance and shear resistance of lintels

PD 6697
Recommendations for the design of masonry structures to BS EN 1996-1-1 and BS EN 1996-2

Product Certification

UKCA Marking: Lucideon – 1289
CE Marking: TZUS – 1020
Agrément: BBA – 05/4192
Agrément: BBA – 18/5533
Agrément: BBA – 25/7441
Agrément: BBA – 24/7294
ISO 9001: BSI – FS 849787
ISO 14001: BSI – EMS 849786
EN 1090 CE: BSI – 2797

EN 845-2 Table C.1

L1 – Stainless Steel 316
L3 – Stainless Steel 304
L10 – Galvanised Steel 100 µm
L11 – Galvanised Steel 65 µm
L12.1 – Galvanised Steel 42 µm
L14 – Galvanised Steel 42 µm
L16.1 – Galvanised Steel 20 µm
L16.2 – Galvanised Steel 20 µm

IG Lintels Recommendations as per available published standards and guidance, conforming to EN 845-2 and PD 6697:

- It is **recommended** that steel lintels in buildings over 3 storeys in height and all buildings in coastal locations are manufactured from Austenitic Stainless Steel.
- The use of any galvanised coating is **not recommended** for steel lintels in coastal locations, including 710g/m², which is commonly used as a protective coating for structural steel.
- It is **not recommended** to rely on the use of any corrosion protection coating on steel lintels in coastal locations. The material / coating specification should be limited to Austenitic Stainless Steel.
- It is **recommended** to use a separate damp proof course / cavity tray in coastal locations and in areas of severe and very severe exposure to wind driven rain.

Relevant standards and guidance document information available overleaf

		Material coating recommendations for steel lintels located in an aggressive environment.		
		Galvanized Coating	Stainless Steel 304	Stainless Steel 316
Less than 500m from coastline	IG	X	X	✓
	NHBC	X	X	✓
	LABC	X	✓	✓
Between 500m and 1000m from coastline	IG	X	Specification Assessment	✓
	NHBC	✓	✓	✓
	LABC	Specification Assessment	✓	✓
Between 1000m and 5000m from coastline	IG	Specification Assessment	✓	✓
	NHBC	✓	✓	✓
	LABC	Specification Assessment	✓	✓

Note 1: IG Lintels are designed and specified to last the lifespan of the building in which they are installed without maintenance, however regular cleaning can help prolong the aesthetic appearance of the steel lintel.
Note 2: IG Lintels do not recommend the use of galvanised steel lintels in buildings located in an aggressive environment (e.g. coastal sites) in line with published guidance.

It is recommended that Austenitic Stainless Steel Lintels be used in buildings exceeding 3 storeys in height and all buildings in coastal locations.

For further information please contact IG Lintels technical team.

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Standards and Guidance: Lintel References

EN 845-2: 2013 + A1 2016 – Specification for ancillary components for masonry: Lintels:

- 4 Materials, 4.1 Steel lintels, materials for the manufacture of steel lintels covered by this standard shall be selected from Annex C.1 and the material/coating reference shall be declared.
- C.1 Steel lintels, steel lintels shall be provided, when relevant, with one of the protective coating systems in accordance with Table C.1
- Steel lintel material coating references recommended for coastal locations:

Table C.1 - Materials and corrosion protection systems for steel lintels

Material	Specification for material[a]	Coating specification[f]			Organic coating thickness µm	Material coating reference[d]
		Mass per slide g/m²	Mass per two slide g/m²	Thickness µm		
Austentic stainless steel (molybdenum chrome nickel alloys)	EN 100088-1, -2, -3, -4, -5	–	–	–	–	L1[h]
Austentic stainless steel (chrome nickel alloys)	EN 100088-1, -2, -3, -4, -5	–	–	–	–	L3[h]
Austentic ferritic stainless steel	EN 100088-1, -2, -3, -4, -5	–	–	–	–	L4[h]

- NA.5 Durability Guidance on the choice from Annex C, of materials and corrosion protection systems suitable for use in the UK will be found in PD 6697. Other user design and execution guidance can also be found in EN 1996-2.
- UK National Annex relating to BS EN 1996-2 states that Annexes B & C should not be used.

PD 6697 – Table 2 – Selection of ancillary components relating to material/coating and situation:

- Note 3, In contact with or embedded in an outer leaf of an external cavity wall or a single leaf external wall, in buildings exceeding 3 storeys in a non-aggressive environment, the material / coating specifications should be limited to austenitic stainless steels L1 and L3 (Lintels).
- Note 4, For buildings located in an aggressive environment (e.g. coastal sites) the material / coating specification for products in both leaves of an external wall should be austenitic stainless steel (molybdenum chrome nickel alloys) L1 (Lintels).

NHBC – Chapter 6.1 – External Masonry Walls:

- In Scotland, Northern Ireland, the Isle of Man and areas of severe or very severe exposure to driving rain, a separate cavity tray should be provided over all lintels.
- Lintels should be austenitic stainless steel (molybdenum chrome nickel alloys) where used in aggressive environments, eg coastal sites.

NHBC – Technical Extra issue 25:

- NHBC Standards define coastal sites as those within 500m of the shoreline.
- NHBC are taking a detailed look at claims data inland as they may be experiencing similar issues relating to high winds and storms coming in from the sea.
- Even Coastal sites deemed as sheltered or moderate locations can experience occasional exposure to storm conditions, which can expose weaknesses in the buildings design, leading to failure.

LABC – C.1.12 – Materials, Products, and building systems: Corrosion protection and durability:

- Steel lintels in coastal locations, used in both leaves of an external wall openings on projects within 500m of the shoreline, should be austenitic stainless steel and, in addition, protected by a separate damp proof system / cavity tray.
- For sites between 500m and 5km of the shoreline, the lintel manufacturer should confirm their product is suitable for use in this environment – if not made from austenitic stainless steel and confirm will remain durable for 60 years. The durability of this element should not be reliant on maintenance.

Premier Guarantee – Annex C.1.12:

- 6.1.9, Cavity Trays, Cavity trays must be provided above lintels in walls in exposure zones 3 and 4. In Zones 1 and 2 where the lintel is not corrosion-resistant and not intended to function as its own cavity tray.
- Steel lintels in coastal locations, Steel lintels in coastal locations, used in both leaves of an external wall opening on projects within 500m of the shoreline, should be authentic stainless steel and, in addition protected by a separate damp proof course/ cavity tray.
- For sites between 500m and 5km of the shoreline, the lintel manufacturer should confirm their product is suitable for use in this environment – if not made from austenitic stainless steel and confirm will remain durable for 60 years. The durability of this element should not be reliant on maintenance.

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