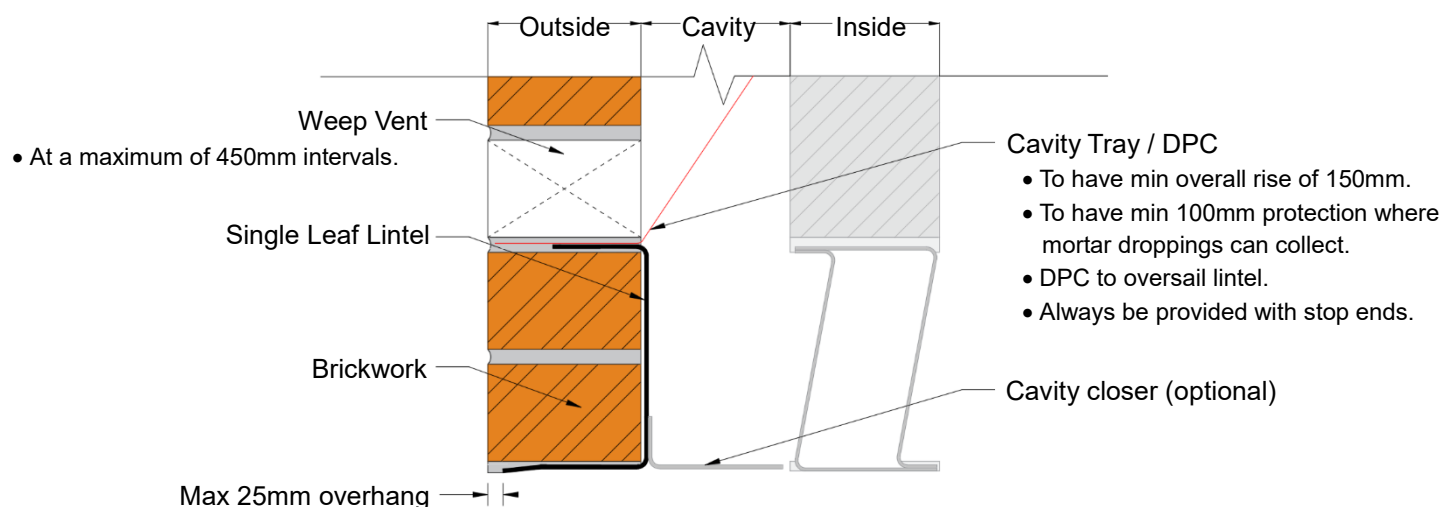


# Technical Data Sheet

## Single Leaf Lintels



### Installation Instructions:

- Lintels should be installed with adequate end bearing, bedded on mortar and levelled across its length and width.
- The masonry above the lintel should be built in accordance with BS EN 1996-2:2006.
- Masonry should be laid on a mortar bed and all perpendicular joints should be filled.
- Temporary propping can be used to facilitate speed of construction.  
(Refer to Keystone Lintels Technical Guidance "Propping Lintels")
- NHBC recommends DPCs or cavity trays be installed over all openings in external cavity walls.
- Allow mortar to cure before applying roof loads.
- When installing heavy components above a lintel, care must be taken to avoid shock loading. Masonry immediately above the lintel should be allowed to cure.
- Point loads should not be applied directly onto the lintel flange. Lintels should have a minimum of 150mm masonry between the flange and the application level of any form of loading.  
Consult Keystone Lintels technical team if applying a point load above a lintel.
- The external lintel flange must project beyond the window/door frame and it is recommended that a flexible sealing compound is used between the underside of the lintel flange and the frame.
- When the underside of a lintel is exposed, its appearance can be enhanced by the addition of lintel soffit cladding.
- Do not cut lintels to length or modify in any way without consulting a Keystone engineer.

### End Bearing:

- Refer to Keystone Lintels Technical Guidance "Steel Lintel End Bearing"

### Handling and Storage:

- Exercise caution when handling lintels to prevent injury to oneself; suitable personal protective equipment (PPE) should be utilised.
- Handle lintels with reasonable care during unloading, stacking and storage to avoid damage (damaged lintels must not be used). Lintels may be handled by site personnel (except for the longer span lintels) and can generally be lifted by a single operative or mechanical lifting devices – care must be taken to ensure any forks, slings or chains do not damage any coatings or finishes.
- The lintels must be stored off the ground in such a manner to prevent the risk of either mechanical damage or contamination by corrosive substances. It is considered best practice to implement a stock rotation system.

### Testing:

In accordance with the requirements of BS EN 845-2 and BS EN 846-9.

### Steel Properties:

| Material Coating Reference               | L1                                                                                             | L3                                                | L12.1                                                                 | L14<br>(As Standard)                                        |
|------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------|
| Material                                 | Austenitic Stainless Steel (molybdenum chrome nickel alloys)                                   | Austenitic Stainless Steel (chrome nickel alloys) | Zinc coated steel – Z600 with organic coating over all outer surfaces | Zinc coated steel – Z600 with organic coating on cut edges. |
| Steel Grade                              | 316 / 316L<br>EU(1.4401 / 1.4404)                                                              | 304 / 304L<br>EU(1.4301 / 1.4307)                 | DX51D                                                                 | DX51D                                                       |
| Specification for material               | EN 10088-Part 2                                                                                | EN 10088-Part 2                                   | EN 10346                                                              | EN 10346                                                    |
| Mass per two sides (g/m <sup>2</sup> )   | -                                                                                              | -                                                 | 600                                                                   | 600                                                         |
| Coating Thickness (µm)                   | -                                                                                              | -                                                 | 42                                                                    | 42                                                          |
| Organic Coating Thickness (µm)           | -                                                                                              | -                                                 | 25                                                                    | 25                                                          |
| Elastic modulus (N/mm <sup>2</sup> )     | 200,000                                                                                        | 200,000                                           | 210,000                                                               | 210,000                                                     |
| Yield strength (N/mm <sup>2</sup> )      | 220                                                                                            | 210 / 200                                         | 250 (min)                                                             | 250 (min)                                                   |
| Thermal Conductivity (W/mK)              | 15                                                                                             | 15                                                | 50                                                                    | 50                                                          |
| Combustibility                           | A1                                                                                             | A1                                                | A1                                                                    | A1                                                          |
| Lifespan                                 | 60+ Years<br>Refer to Keystone Lintels Technical Guidance “Durability”                         |                                                   |                                                                       |                                                             |
| Fire Resistance                          | Consult with Keystone Lintels technical department<br>“Behaviour in Relation to Fire”          |                                                   |                                                                       |                                                             |
| Recommended Coastal Proximity Limits (m) | Refer to Keystone Lintels Technical Data Sheet<br>“Steel Lintels for Use in Coastal Locations” |                                                   |                                                                       |                                                             |

### Insulation Properties:

N/A

### Environmental Impact:

|       |                                        |
|-------|----------------------------------------|
| Steel | 100% recyclable                        |
|       | Mild Steel = 15-25% recycled content   |
|       | Stainless Steel = 65% recycled content |

BRE Environmental Product Declaration (EPD) Available Upon Request