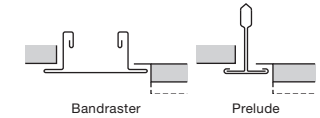


# CEILING SYSTEMS

[ Between us, ideas become reality.™ ]

## Technical Data Sheet



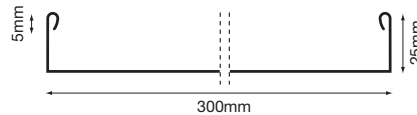
## ORCAL PLANKS

This Technical Data Sheet is offered as an aid to the specification of our products and provides information on the planks manufactured at our European production facilities.

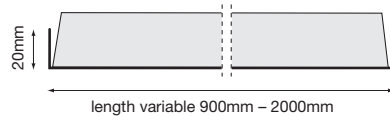
Orcal Planks with Standard Perforation and Microperforation are available with factory applied black acoustic fleece, whilst Orcal Planks with Extra Microperforation are always supplied with factory applied black acoustic fleece. Orcal Planks can also be made available to order with Premium B15 infill. Please contact Armstrong Internal Technical Sales Group for further details.

Four types of Orcal Planks are offered featuring the following common details:

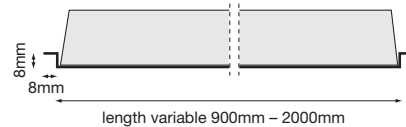
Width: 300 mm  
 Lengths: Variable between 900mm and 2000mm in increments of 1mm.  
 Edge detail long sides: Square edge, 25mm high with 5mm hemmed edge.



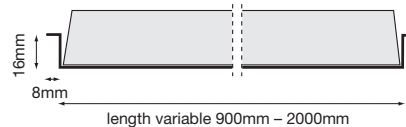
**Plank type 'SE', Lay-in:**  
 Edge detail short sides: Square edge, 20mm high.



**Plank type 'TE8':**  
 Edge detail short sides: Tegular 8mm square edge.



**Plank type 'TE16':**  
 Edge detail short sides: Tegular 16mm square edge.



**Note:** 3mm wide and 8mm deep gaskets can be supplied on one long side (reduce actual panel width by 3mm to 297mm wide) and/or two short sides (reduce actual panel length by 6mm).

<b>Material</b>	Tiles are manufactured from zinc coated mild steel. Steel gauge dependent on product size.
<b>Finish</b>	Factory applied polyester powder coat, minimum thickness 55 microns.
<b>Colour</b>	Standard : RAL 9010, optional 'Global White' Semi-Standard : RAL 9001, RAL 9002, RAL 9006, RAL 9007, RAL 9016 Other colours are available as special order items.
<b>Gloss</b>	RAL 9010 : 20% Global White : 20% Semi-Standard : 30% Measured in accordance with ISO 2813 : 2000, using 60° geometry.

Light Reflectance	Surface	RAL 9010	Global White
	Plain (unperforated)	87%	77%
	Extra Microperforation with black fleece	85%	76%
	Microperforation with black fleece	71%	63%
	Standard perforation with black fleece	75%	68%

Measured in accordance with ASTM 1477-98.

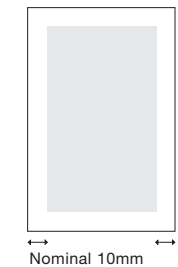
Surfaces	Plain (unperforated)	Standard Perforation 2.5mm dia. holes 16% open area	Microperforation 1.5mm dia. holes 22% open area	Extra Microperforation 0.7mm dia. holes 1% open area
Other perforations are available as special order items. Please contact ITS for options and capabilities.				

**Perforation**  
 Orcal Planks with Standard Perforation and Microperforation are produced with a nominal 10mm plain border to the tile edge (see diagram). Orcal Planks with Extra Microperforation are perforated overall.

Type SE



Types TE8, TE16



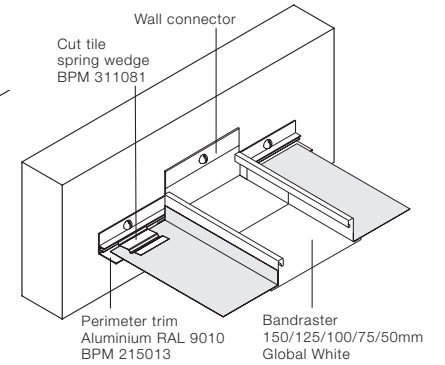
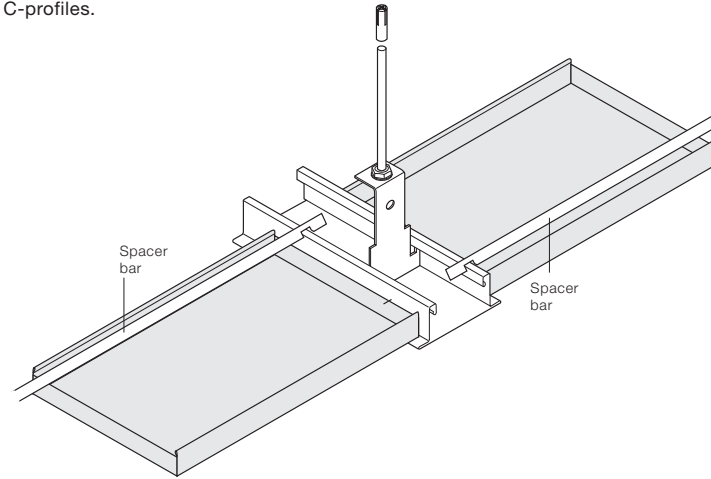
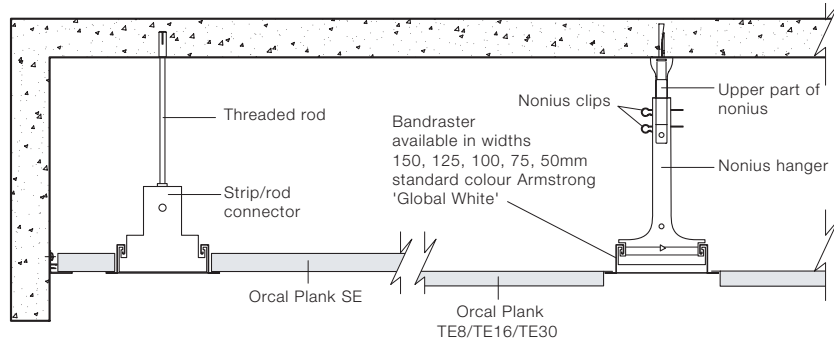
Equal plain borders on the short sides, however, according to the actual length required, the width may vary between 10mm and 15mm



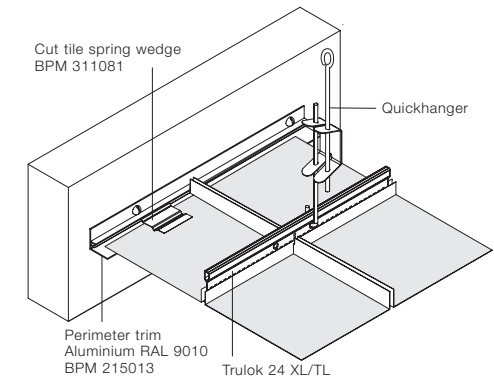
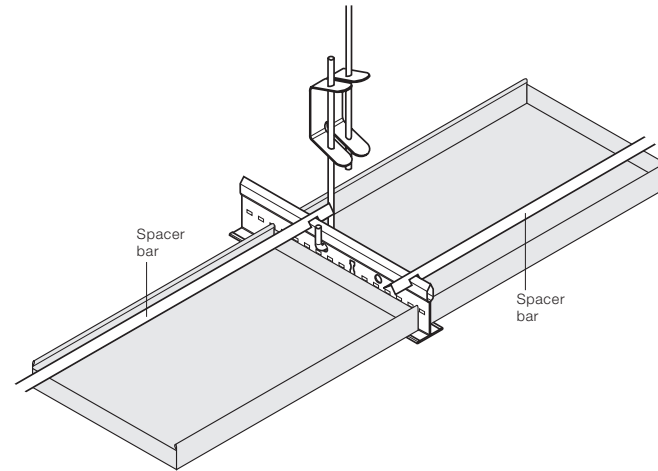
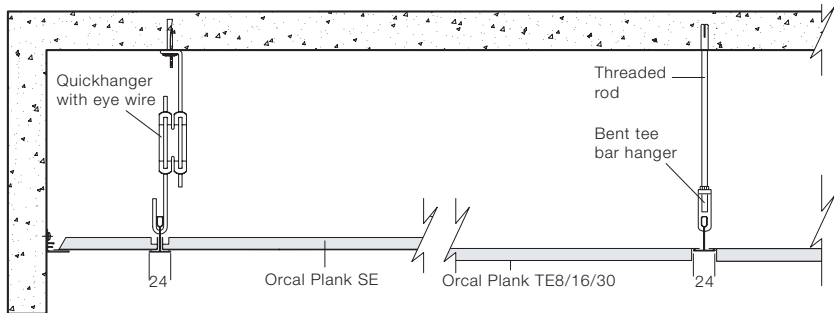
# PLANKS

**Installation:** Orcal Planks are designed for installation and removal without the use of tools, and are ideal to span between Trulok 24 exposed grid, Bandraster sections (linear grid), and C-profiles.

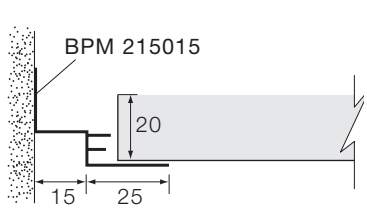
## Bandraster



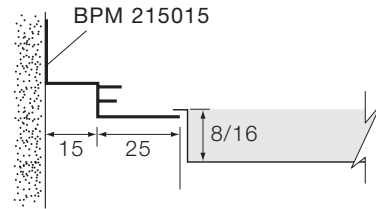
## Trulok 24 XL/TL



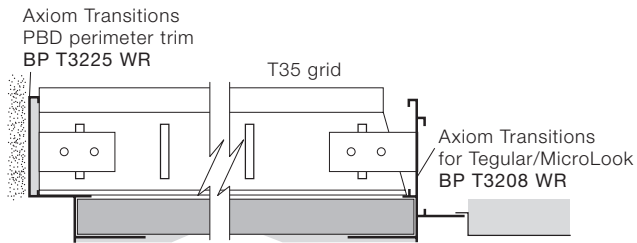
## Perimeter Solutions: with full planks



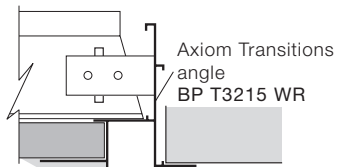
**Orcal Plank SE**



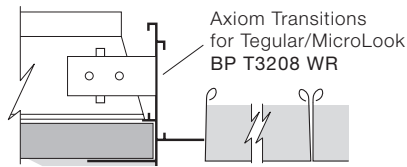
**Orcal Planks TE8/16**



**Orcal Plank TE8**

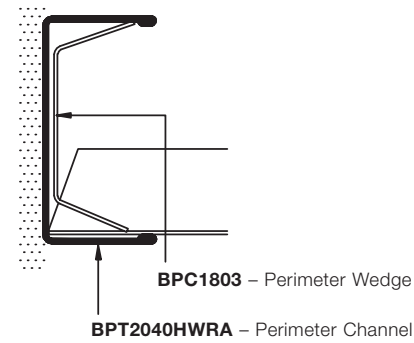
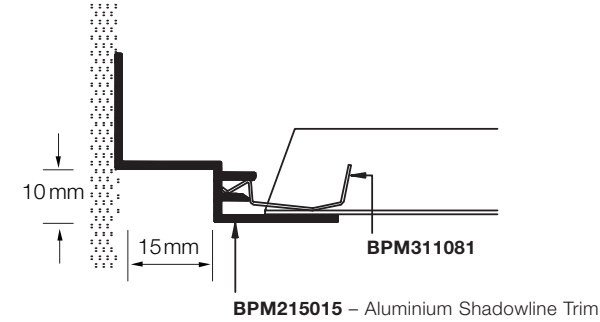
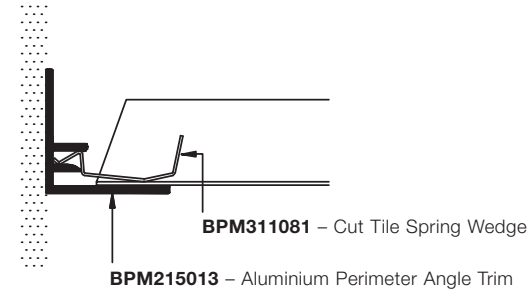


**Orcal Plank SE**



**Orcal Plank TE - long side junction with Axiom Transitions**

## Perimeter Solutions: with cut planks



Cut tile wedges **BPM311081** and **BPC1803**, 1 piece per 300mm of perimeter trim is recommended

**Acoustic Performance****Sound Absorption ( $\alpha_w$ )**

	Acoustic fleece	Premium B15 infill
Standard Perforation	0.70 (L)	0.60 (H)
Microperforation	0.75 (L)	0.60 (H)
Extra Microperforation	0.55 (L)	0.65 (L)

**No acoustic infill ( $\alpha_w$ )**

Plain 0.10(L)

**Room-to-room sound attenuation (Dncw)**

	Acoustic fleece	Premium B15 infill
Standard Perforation	20 dB	41 dB
Microperforation	20 dB	41 dB
Extra Microperforation	30 dB	40 dB
Plain	–	47 dB

**No acoustic infill (Dncw)**

Plain 44 dB

A range of acoustic infills is available to achieve various acoustic performance levels. For further information please contact Armstrong Internal Technical Sales Group.

**Tile Loading**

Orcal tiles are capable of directly supporting limited additional loads from small service fittings. The maximum total uniformly distributed static load that can be applied to the rear of a 600x600mm tile should not exceed 3kg. The use of a patrix is recommended to distribute the load and to minimise face deflection of the tiles. Loads greater than 3kg should be independently suspended or supported from the primary grid. The maximum distributed static load that can be carried by the grid system should not exceed 10 kg/m<sup>2</sup>. (Applies to standard ladder formation with main runners and hangers at 1200mm centres.)

**Services Integration**

Orcal tiles can be supplied with factory produced cut outs and apertures for the integration of lighting fittings, air grilles, sprinklers, and other building services equipment.

**Handling and Storage**

Ceiling components should be stored under conditions of use in a dry interior location and should remain in cartons until installation. Cartons should be stacked and oriented as shown on the carton. Care must be exercised during handling and opening of cartons to avoid damage. The use of soft cotton gloves is recommended for tile installation.

**Environmental**

Our metal ceilings have an average of 25% recycling content. ISO 14001: 2004 certified process.

**United Kingdom****Republic of Ireland**

Armstrong World Industries Ltd.  
Building Products Division  
Armstrong House  
38 Market Square  
Uxbridge UB8 1NG

0800 371849 (UK)

FREEPHONE

1800 409002 (ROI)

Fax: +44 (0) 1895 274287

sales-support@armstrong.com

www.armstrong-ceilings.co.uk

www.armstrong-ceilings.ie

Other markets: www.armstrong-europe.com

**Thermal Conductivity**

(λ) W/mK

50.0 : Steel

0.04 : Acoustic fleece

**Humidity Exposure**

Not greater than 70% RH @ 16°-23°C for long term exposure. Not greater than 95% RH for short term exposure during building site installation.

**Fire Reaction****Plain without acoustic infill**

EEA Euroclass A1 (RAL 9010)

EEA Euroclass A2-s2, d0 (other colours)

**No acoustic infill**Perforated  $\phi \leq 2.5$  mm

EEA Euroclass A1 (RAL 9010)

EEA Euroclass A2-s1, d0 (other colours)

**With acoustic Fleece, ABBTF pad or B15 infill**Perforated  $\phi \leq 2.5$  mm (acoustic fleece)

EEA Euroclass A2-s2, d0

Perforated  $\phi \leq 2.5$  mm (ABBTF pad)

EEA Euroclass A1

Perforated  $\phi \leq 2.5$  mm (Premium B15 infill)

EEA Euroclass A2-s1, d0

**Weight**5 kg/m<sup>2</sup> – Steel tile**Field Cutting**

Orcal tiles can be cut using tin snips, electric sheet metal shears or band/jig saw. Care must be exercised to avoid damage to the painted surface, bending or distortion of the tiles.

**Cleaning**

Dust should be removed from the painted surface by wiping with a clean soft cloth. More stubborn marks should be removed with a mild household detergent in warm water. Excessive use of water should be avoided. The use of abrasive cleaners or scrubbing of the painted surface is not recommended.

**Quality Standard**

Armstrong is a certified ISO900:200 Quality Assumed Manufacturer. All tiles and products are manufactured to tolerances and quality standards in accordance with EN13964. Where differences exist between this and any expressed or implied architectural specifications or requirements than Armstrong's manufacturing standards will prevail unless stated otherwise.

Detailed NBS K40 specifications are available for these products, please contact Armstrong Internal Technical Sales Group for further details. All product specifications are subject to modifications without prior notice.