

## TECHNICAL

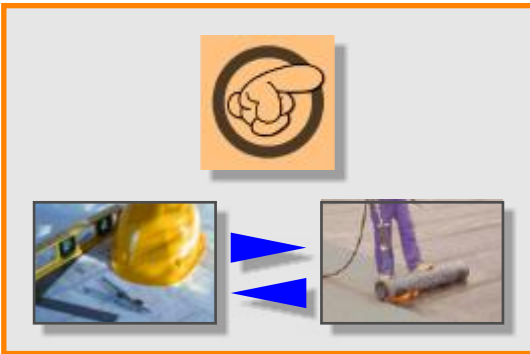


## DETAILS

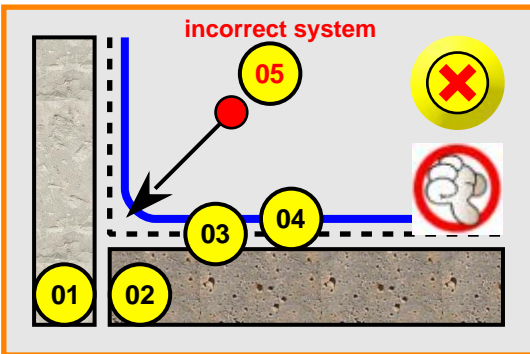
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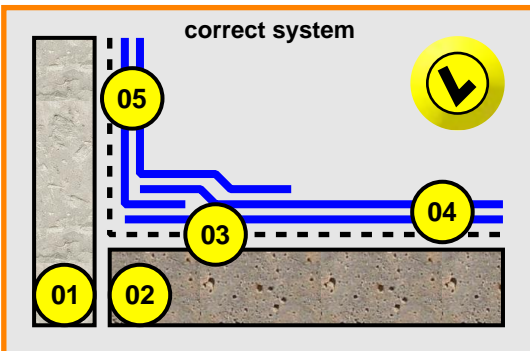
The construction of the technical part of waterproofing requires close collaboration between the manufacturer, designer and contractor. The cooperation needs to take into account the differing situations and it is difficult to specify product, design or method of laying can suitable for all situations



wall upstand--(01) ----- incorrect system

- (01)--vertical wall
- (02)--concrete deck
- (03)--bituminous primer
- (04)--waterproofing membrane
- (05)--angle

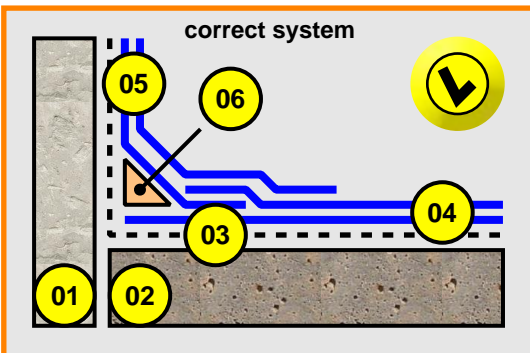
nb : in the absence of separation between the layers or an angle fillet leads to a difficulty of correct welding of the membrane in the corners creating major localised stress



wall connection--(02) ----- correct system

- (01)--vertical wall
- (02)--concrete deck
- (03)--bituminous primer
- (04)--horizontal waterproofing
- (05)--vertical waterproofing

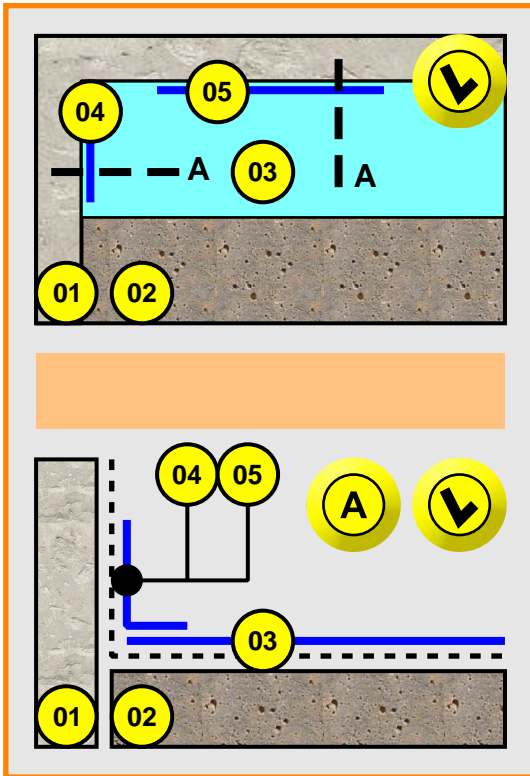
nb : the vertical membrane should be lapped onto the horizontal by not less than 15 to 20 cm



wall connection--(03) ----- correct system

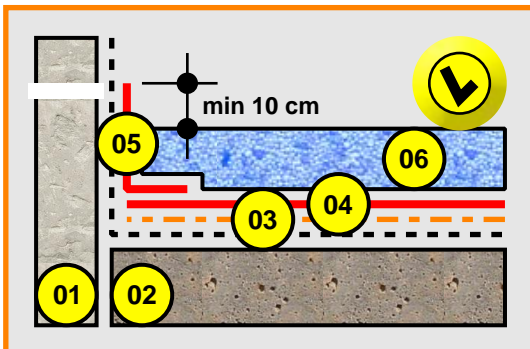
- (01)--vertical wall
- (02)--concrete deck
- (03)--bituminous primer
- (04)--horizontal waterproofing
- (05)--vertical waterproofing
- (06)--angle fillet

nb : the vertical membrane should be lapped onto the horizontal by not less than 15 to 20 cm



edge connection

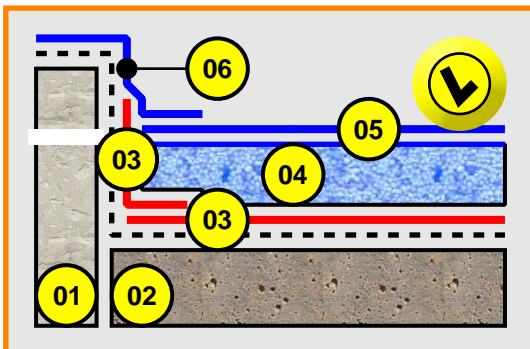
- (01)--vertical wall
- (02)--deck
- (03)--waterproof membrane
- (04)--membrane coupling the vertical head (section A)
- (05)--membrane coupling the vertical head (section A)



connection to the board vapour barrier---(01)

- (01)--vertical wall
- (02)--deck
- (03)--vented membrane
- (04)--waterproofing membrane
- (05)--vented vertical
- (06)--insulation

nb : the vented layer (03) will be partly bonded



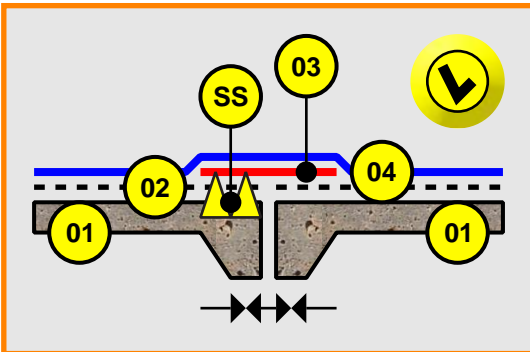
connection to the board vapour barrier---(02)

- (01) – vertical wall
- (02) - deck
- (03) – vapour barrier
- (04) – insulation bonded to vapour barrier
- (05) – waterproofing membrane
- (06) – waterproofing membrane vertical

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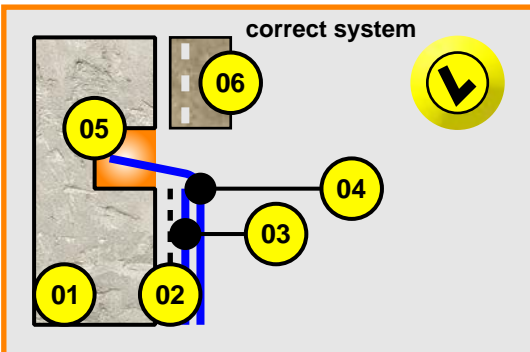
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joint detail

- (01)--concrete deck
- (02)--bituminous primer
- (03)--joint bridge membrane
- (04)--waterproofing membrane

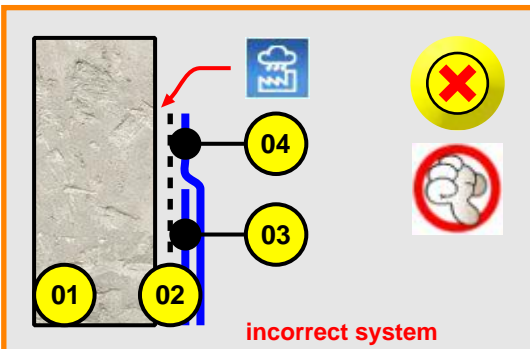
nb : the bridge joint is made with a band membrane from 20 to 25 cm wide placed across the joint and welded on one side only (ref SS)



correct system

connection to wall---(01) ----- correct system

- (01)--vertical concrete wall
- (02)--bituminous primer
- (03)--waterproofing membrane
- (04)--waterproofing capping layer
- (05)--permanent seal of polymer or polymer bitumen sealant
- (06)--reinforced external screed

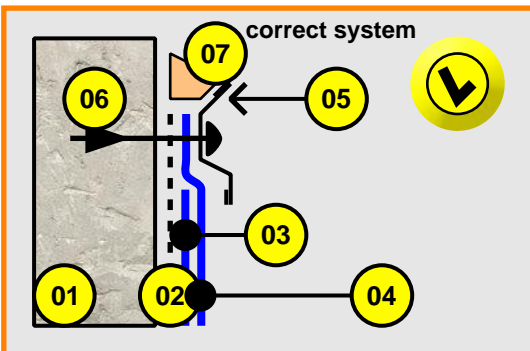


incorrect system

connection to wall---(02) ----- incorrect system

- (01)--vertical concrete wall
- (02)--bituminous primer
- (03)--waterproofing membrane
- (04)--waterproofing capping layer

nb : rainwater can percolate through the top edge of the waterproofing system in relatively short time



correct system

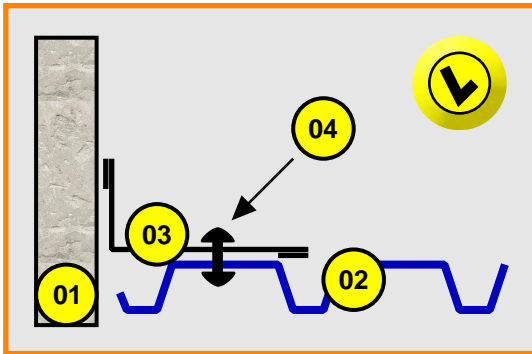
connection to wall---(03) ----- correct system

- (01)--vertical concrete wall
- (02)--bituminous primer
- (03)--waterproofing membrane
- (04)--waterproofing capping layer
- (05)--sheet metal flashing bent to shape
- (06)--fixing unit expansion
- (07)--permanent seal of polymeric or polymer bitumen sealant

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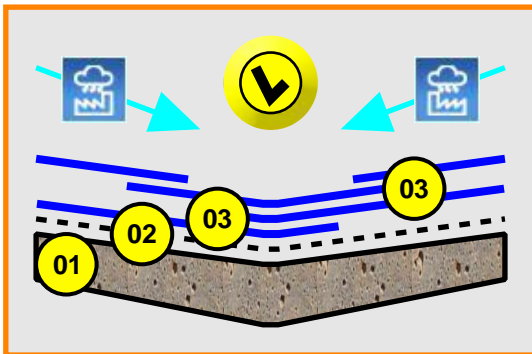
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connection to the wall--(04)

- (01)--vertical wall
- (02)--metal deck
- (03)--metal profile flashing
- (04)--fixings

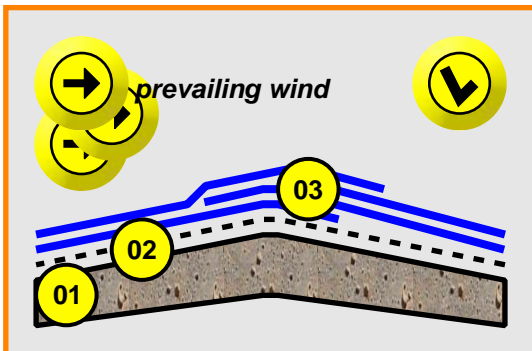
nb : the corner metal flashing is fixed to the metal



gutter area

- (01)--concrete deck
- (02)--bituminous primer
- (03)--two-layer waterproofing system

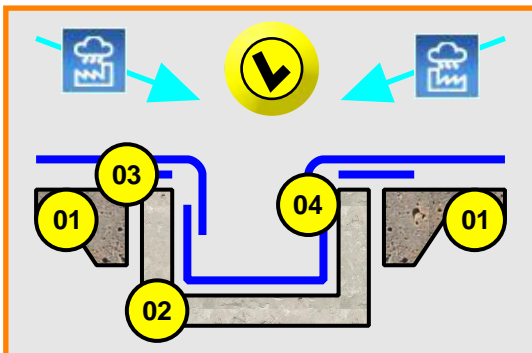
nb : overlap membrane by not less than 15 cm in areas affected by the flow of water



ridge area

- (01)--concrete deck
- (02)--bituminous primer
- (03)--two-layer waterproofing system

nb : overlap membrane by not less than 20 cm and never against the prevailing wind



gutter - channel

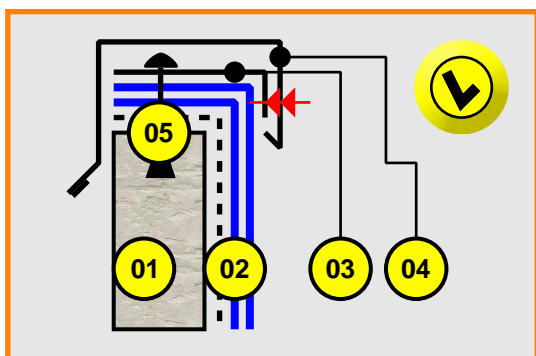
- (01)--deck
- (02)--gutter - channel
- (03)--flashing into gutter
- (04)--two-layer waterproofing system

nb : the membranes used waterproof the gutter cover the whole gutter

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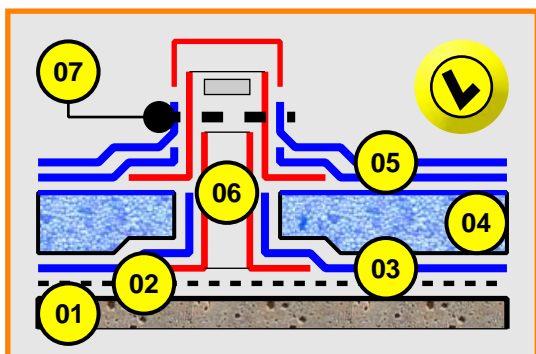


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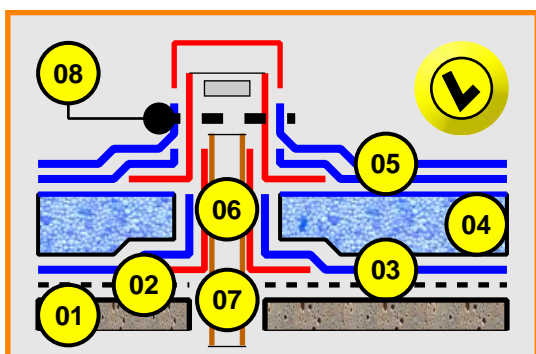
edge details

- (01) – parapet wall
- (02) - two-layer waterproofing system after priming
- (03) – fixing bracket
- (04) - bent sheet metal capping
- (05) - fixing



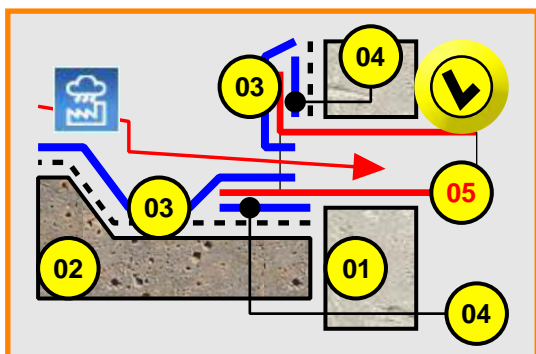
air vent

- (01)--concrete deck
- (02)--bituminous primer
- (03)--vapour barrier
- (04)--insulation bonded to vapour barrier
- (05)--two-layer waterproofing system
- (06)--air vent with cap
- (07)--hose clamp



pipe vent

- (01)--concrete deck
- (02)--bituminous primer
- (03)--vapour barrier
- (04)--insulation bonded to vapour barrier
- (05)--two-layer waterproofing system I
- (06)--roof vent with terminal cap
- (07)--vent pipe
- (08)--hose clamp



through wall outlet

- (01)--parapet wall
- (02)--concrete deck
- (03)--two-layer waterproofing system after priming
- (04)--band of membrane between wall and outlet
- (05)--outlet pipe

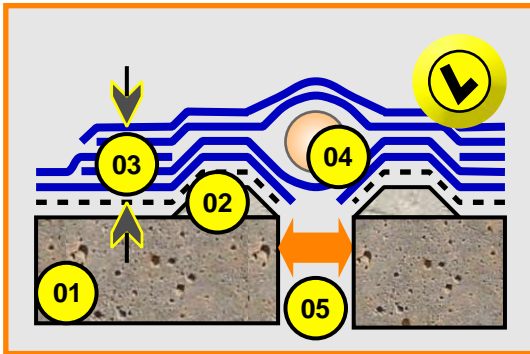
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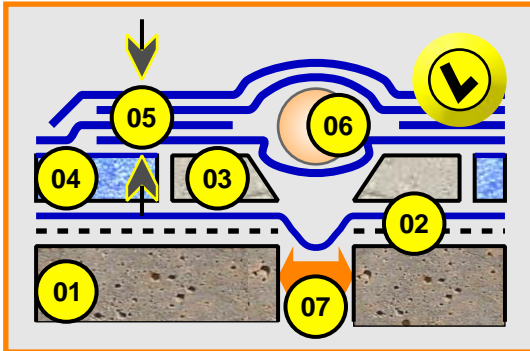
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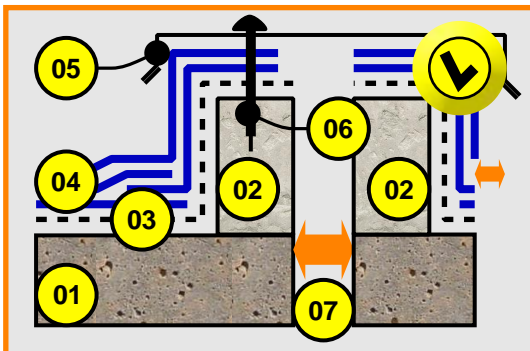
**expansion joint omega shaped ----- non-insulated**

- (01)--concrete deck
- (02)--sand and cement fillet minimum height 30 mm
- (03)--polymer-bitumen membranes  
(after bituminous primer)
- (04)--rotproof and compressible tape
- (05)--structural expansion joint minimum 60 mm



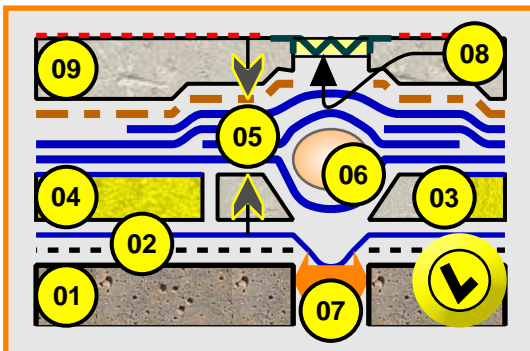
**expansion joint omega shaped ----- insulated**

- (01)--concrete deck
- (02)--vapour barrier after bituminous primer
- (03)--sand and cement fillet minimum height 30 mm
- (04)--insulation bonded to vapour barrier
- (05)--polymer-bitumen membranes mineral
- (06)--rotproof and compressible cord  
50 to 60 mm diameter
- (07)--structural expansion joint minimum 60 mm



**joint between adjoining buildings**

- (01)--concrete deck
- (02)--walls
- (03)--bituminous primer
- (04)--polymer-bitumen membranes
- (05)--metal capping
- (06)--fixings
- (07)--structural expansion joint



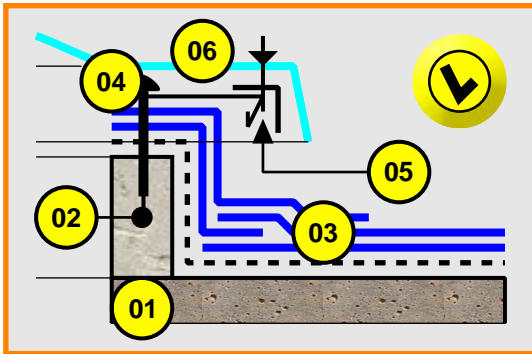
**expansion joint for driveways / bridge decking**

- (01)--concrete deck
- (02)--vapour barrier after bituminous primer
- (03)--sand and cement fillet minimum height 30 mm
- (04)--insulation bonded to vapour barrier
- (05)--polymer-bitumen membranes
- (06)--compressible joint 50 to 60 mm diameter
- (07)--structural expansion joint, width 60 mm min
- (08)--proprietary structural joint
- (09)--driveway

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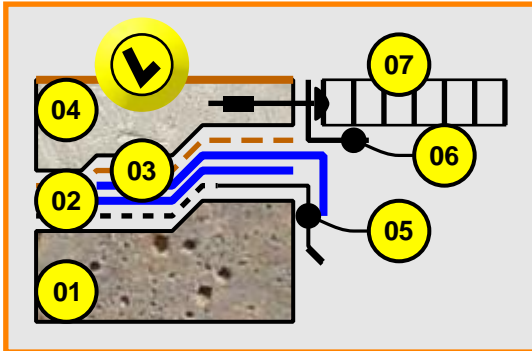


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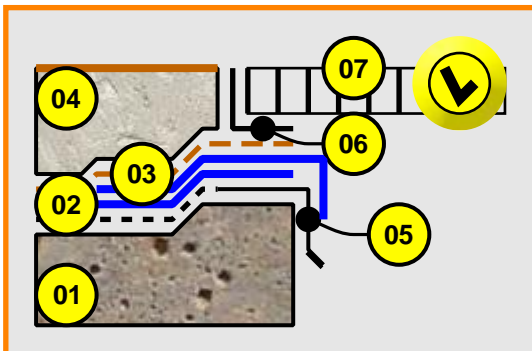
roof light detail

- (01)--deck
- (02)--concrete curb
- (03)--waterproof membranes  
(after bituminous primer)
- (04)--fixing bracket
- (05)--mounting bracket and angular profile link
- (06)--roof light



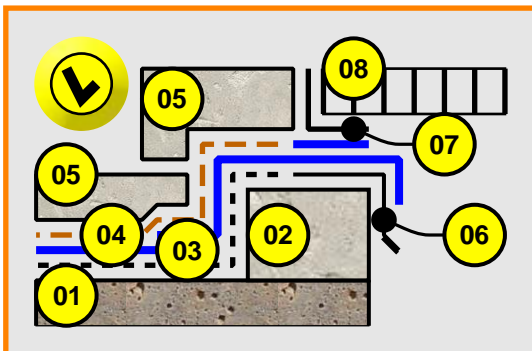
ventilation grille---(01)

- (01)--deck
- (02)--waterproof membranes  
(after bituminous primer)
- (03)--geotextile separation / protection layer
- (04)--paving slab
- (05)--flashing
- (06)--support frame to the grid fixed mechanically
- (07)--metal grills to pedestrian or driveway areas



ventilation grille---(02)

- (01)--deck
- (02)--waterproof membranes  
(after bituminous primer)
- (03)--geotextile separation / protection layer
- (04)--paving slab
- (05)--flashing
- (06)--support frame to the grid
- (07)--metal grilles pedestrians and / or driveway areas



raising ventilation grille---(03)

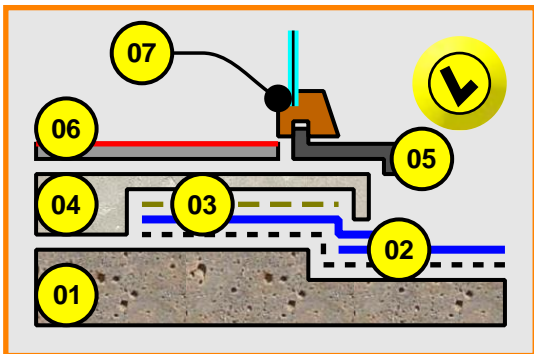
- (01)--deck
- (02)--perimetral board
- (03)--waterproof membranes  
(after bituminous primer)
- (04)--geotextile separation / protection layer
- (05)--screed protection (ref 03)
- (06)--flashing edge of bent sheet
- (07)--support frame to the grid
- (08)--grid

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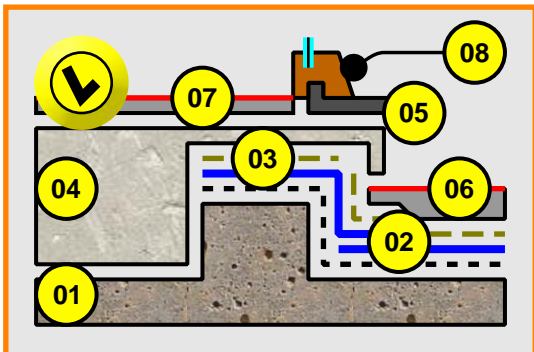
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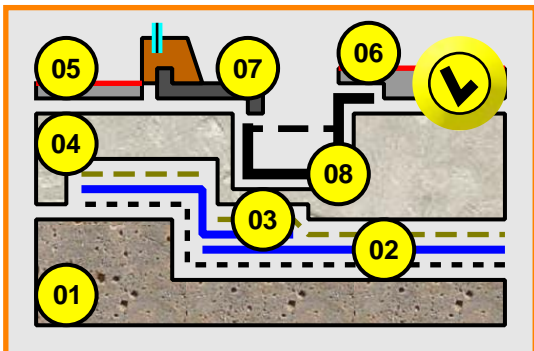
threshold to external doors---(01)

- (01)--deck
- (02)--waterproof membranes  
(after bituminous primer)
- (03)--geotextile separation / protection layer
- (04)--under-paving screed
- (05)--external threshold
- (06)--interior flooring
- (07)--external door



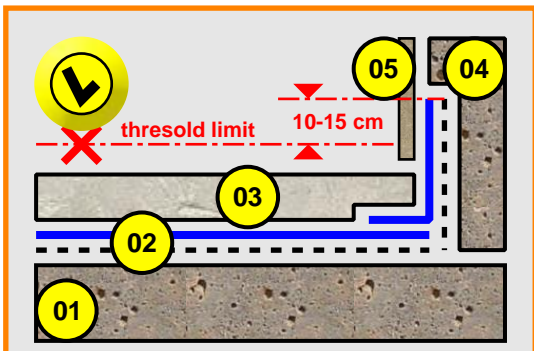
threshold to external doors---(02)

- (01)--deck
- (02)--waterproof membranes after bituminous primer
- (03)--geotextile separation/ protection layer
- (04)--under-paving screed
- (05)--external threshold
- (06)--concrete slab floor and external paving
- (07)--under-paving screed and interior flooring
- (08)--external door



threshold channel with pre-threshold---(03)

- (01)--deck
- (02)--waterproof membranes after bituminous primer
- (03)--geotextile separation / protection layer
- (04)--shaped slab subfloor
- (05)--interior flooring
- (06)--concrete slab floor and external paving
- (07)--external threshold
- (08)--channel collection and wastewater pre-threshold



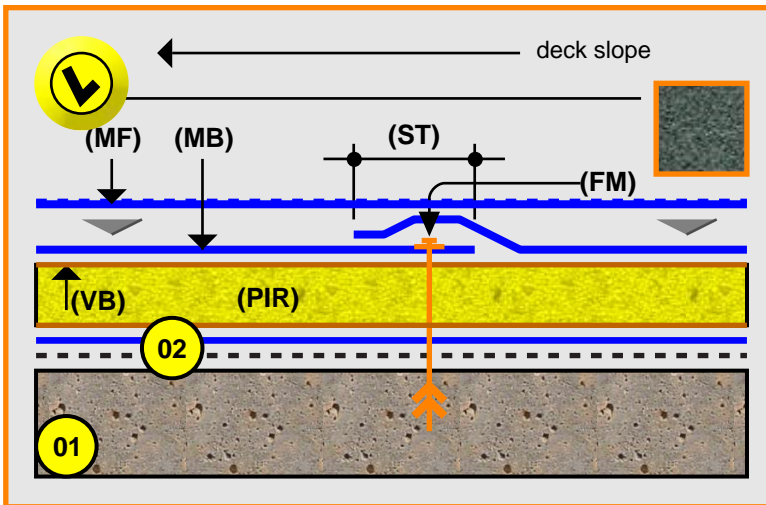
outside door bundle

- (01)--deck
- (02)--waterproof membrane  
(after bituminous primer)
- (03)--under-paving screed
- (04)--perimeter wall
- (05)--exterior plaster

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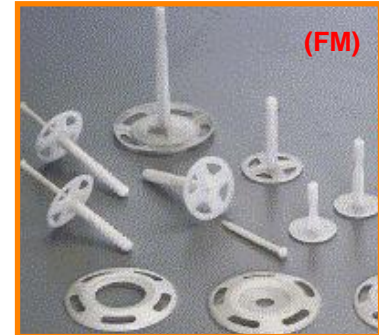


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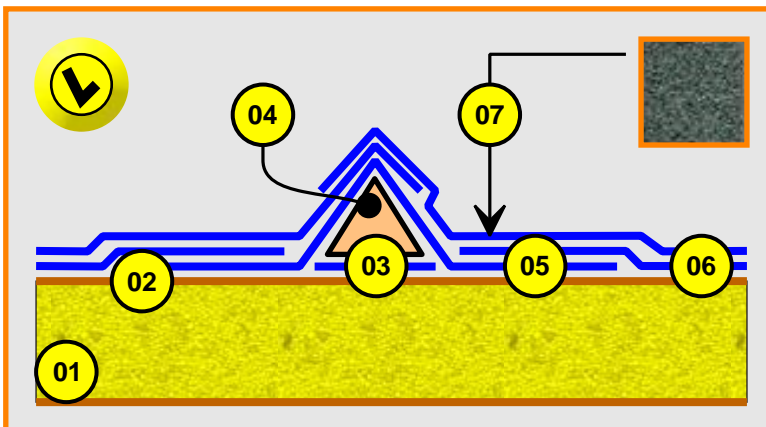


**mechanical fixing**

a group of mechanical fixing polyamide



**legend :** (01) = support base in reinforced concrete --- (02) = barrier (or screen) to the steam Viapol mbp, after priming bituminous ViaBit ---- transverse joints (ref **ST**) of the base sheets (ref **MB**) membrane-bp Viapol > = 12 cm --- a group of mechanical fixings polyamide (ref **FM**) --- coating of insulation panels glass mat bitumen (ref **VB**) --- membrane-bp (ref **MF**) end self shielded Viapol Mineral --- panel thermo-insulating foam (ref **PIR**)



**external compensation joint**

where the size of the roof is relevant and has no structural dilatation joints :

--we recommend the inclusion of a compensation joint made within the waterproofing system  
 ---this operation can avoid a lot of dangerous effects, such as :

- dislocations
- slidings
- detachments
- localized breakages
- over-tensions

**legend :** (01) = thermo-pane insulating foam --- (02) = coating of thermal insulation panels glass mat asphalt --- (03) = band of support and connection in bitumen polymer membrane viapol, width 12.5 cm --- (04) = compensation profile polyurethane foam 100 x 80 mm --- (05) : band link bitumen polymer membrane viapol, width 50±66 cm --- (06) = base coat in membrane polymer bitumen Viapol --- (07) = finishing layer in polymer bitumen membrane self shielded Viapol Mineral

The company starts its activity in 1939 when under the name of **Vetroasfalto** begins with the production of bitumen coated felts. In these years starts the production of prefabricated membranes that can be considered precursor of the actual bituminous membranes "Viapol". The stratified sequences made of coated paper felts of melted oxidised bitumen was replaced, in 1963, by a new application technique with torch on membranes of prefabricated rolls with high and constant characteristics. The wide range of Vetroasfalto's products represents a new tangible answers to all specific requirements of waterproofing. Today Vetroasfalto have a consolidated know-how and technology, and an excellent Technical/Marketing staff and a worldwide located customer basis

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