

TEGOLA – The Versatile Tile

CI/SfB reference

(47) Nn2

January 2009

Asphalt Shingles

- Light Weight
- Low Pitch
- Low Cost
- Long Life



Watermark Resort



Little Milton Village Hall, Pinelog



Lyons+Sleeman+Hoare

Conforms to British
Standard BS EN 544

General

Introduction

Tegola tiles are produced to ISO 9001 by Europe's largest manufacturer of asphalt shingles, producing over 2,500m² per hour and exporting to over 43 countries throughout the world.

They have also been awarded ISO 14001 certification, proving that the production is consistent with environmental protection and that the product does not damage the environment.

Application

Tegola tiles are lightweight and are suitable for roofing and wall cladding, from very low pitches to vertical, and their flexibility makes them suited to curves and complex roof shapes.

Authority

Tegola tiles are produced to standards higher than the British and European standard BS EN 544 with Standard, Traditional, Mosaik, Master and Prestige meeting Class 1.

Description

Composition

Tegola tiles are made from a glass fibre mat, with a weight up to 125gm/m². This gives high mechanical strength, in excess of any international standards. The fibre is pre-impregnated with bitumen to eliminate moisture or cavities within the mat. Further bitumen, which is carefully selected to ensure product stability and resistance to temperature fluctuations, is then added. Silicon sand is added to the underside and the top surface is coated with Tegola's own ceramic granules, whose colour is guaranteed not to fade. A special thermo-setting adhesive is then applied, which sticks the leading edges of the tiles down, and the material is then cut to the shape required.

Accessories

Roof ventilators, eaves and verge trims and Bitustick adhesive, are available.

Shape

Tegola tiles are supplied as a flexible strip of 3-5 tiles, depending on the style, which is normally nailed directly to a timber deck.

Dimensions

The strip size is 1000 x 340mm and details of the exposure, the distance between the courses, and pack sizes are shown in the data table.

Weight

The installed weight, including overlaps, varies from 8 to 16kgs/m² depending on style, as shown in the data table. This makes them suitable for lighter, more economic, structures.

Appearance

Tegola produce their own granules and so can tailor-make to customer requirements. The standard range includes slate, clay, stone and wood colours as well as our copper clad Prestige tile. Styles include the square cut Standard, the hexagonal Mosaik, the round edged Traditional, and the two-ply Master.

Performance

Weather

Tegola tiles are resistant to attack by hostile chemicals in the atmosphere and to high wind speeds, as leading edges are bonded down.

Mechanics

The minimum resistance to longitudinal load is 1000N, to transverse load 840N, and to perforation 3220N.

Fire

Tegola tiles have the top EXT.S.AA and P60 fire ratings.

Chemical

Tegola tiles are resistant to atmospheric corrosion and substances leaching from building materials.

Biological

Tegola tiles are resistant to attack by lichens and moss.

Pollution

Tegola tiles are suitable for use in marine, industrial, urban and rural atmospheres.

Heat

Tegola tiles have been used in very hot climates and tests show that there is no granule slippage after 6 hours in the vertical position at 80°C.

Compatibility

Tegola tiles are compatible with other building materials.

Durability

Tegola tiles have a 10 year transferable warranty. Due to their high strength, thick granule protection and pre-impregnated construction their expected life is 30 years.

Design Application

Deck and Pitches

Tegola tiles can be applied to any nailable deck with standard 'clout' roofing nails. Exterior grade plywood of a minimum thickness of 12mm is usually preferred. They can also be applied to non-nailable decks by using a torch-on method of installation.

The minimum pitch without underlay varies from 14 to 20° depending on the tile used, as shown in the data table overleaf. For pitches less than these minimums, or for slope lengths over 7mm, or exposed locations, the torch-on method or the Tegola self adhesive underlay must be used.



Sparkford Sawmills

Installation

Installation starts by marking out the vertical centre line of the roof, with another line running parallel to show the offset of alternate courses, and horizontal lines showing the exposure distance between the courses. The offset and exposure distances are both shown in the data table overleaf.

Laying the tiles commences at the eaves with a starter course, which is made by cutting the tabs off the tile strip. This is positioned on the offset line, sealed underneath with Bitustick adhesive and nailed to the deck above the heat sensitive adhesive. The first course is nailed on top of this starting from the centre line, with the nails above the adhesive and going through two layers of tiles, and the strips butted end to end along the roof. The second and alternate courses are placed on the offset line and worked up towards the ridge. The final course is bent over the ridge, bearing in mind the direction of the prevailing winds.



Harlow Bros

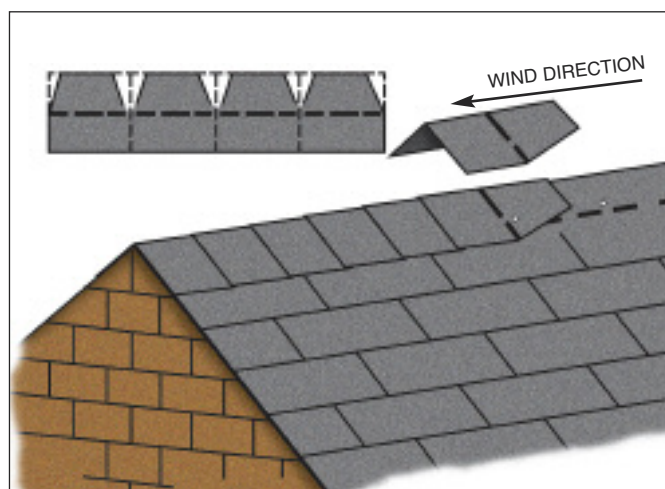
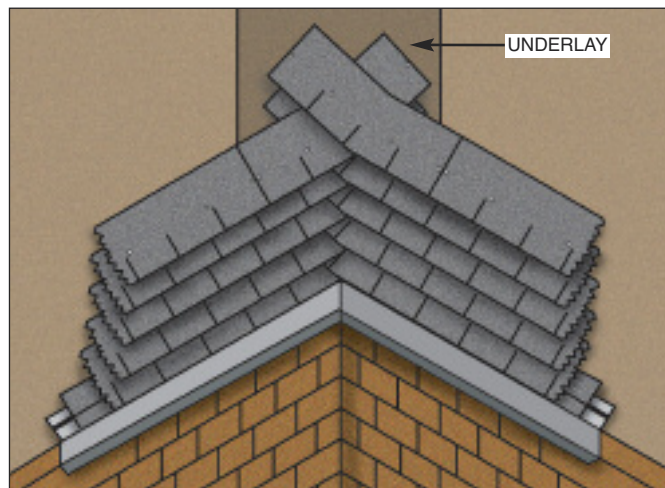
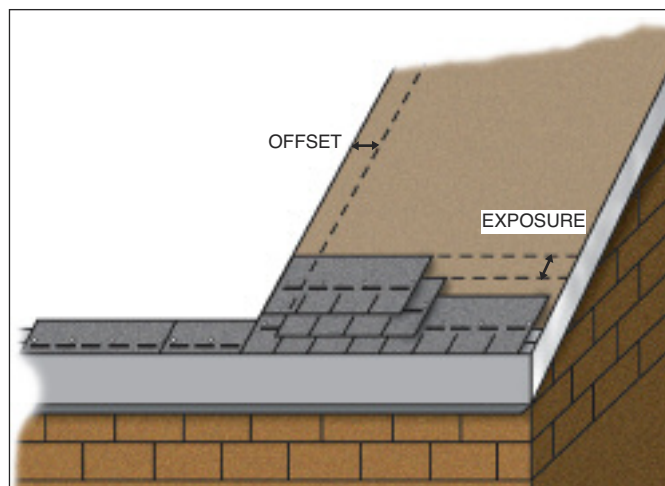
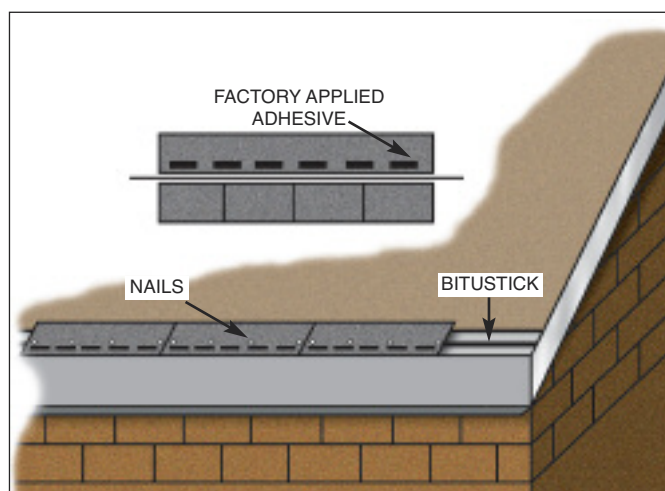
Tegola tiles are supplied with factory applied heat sensitive adhesive, which softens with heat in the roof and sticks the courses together, to prevent wind up-lift. After laying the roof, the leading edges of the tiles are lifted and the adhesive is heated with a roofing torch and bedded down on the courses above. Nails should never be placed into the adhesive otherwise the courses will not stick together.

The ridge, and any hips, are then capped by tiles produced by cutting through the notches on the strips, nailed into position with 2 nails either side and Bitustick adhesive applied over the nails to prevent water penetration and assist in sticking down the overlapping ridge tiles. Installation must be carried out in the opposite direction to the prevailing winds to prevent wind driven rain from penetrating the ridge caps.

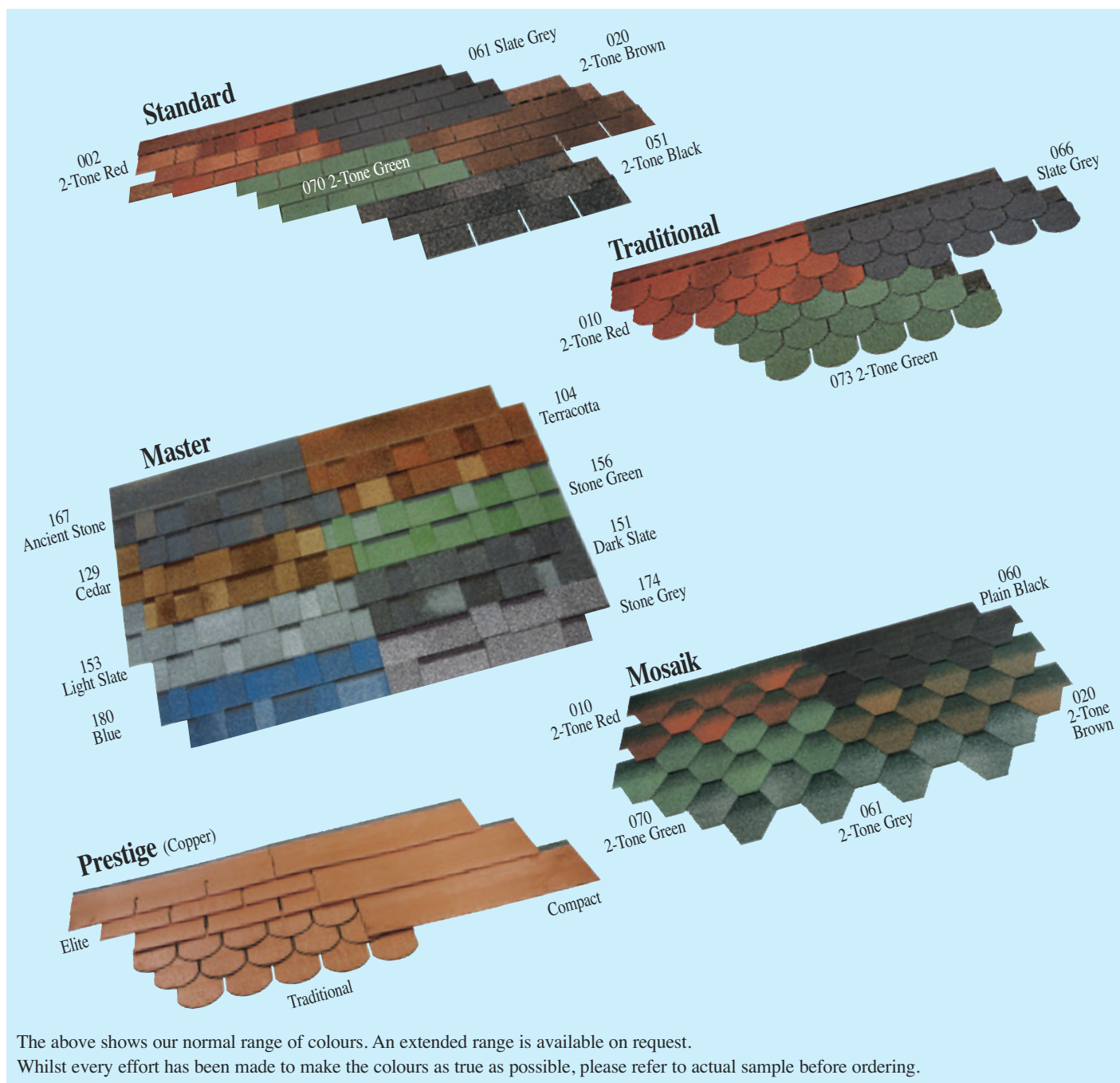
Valleys are started with the Tegola touch-on or self adhesive underlay down the centre line and then interweaving the courses of tiles from the two intersecting roof pitches. For shorter valleys, where the water flow is smaller, it is neater to extend the tiles from one side 1 tab width beyond the centre line and then are cut from the other side to the centre line. This gives a neat mitred effect but relies on a good quality underlay for waterproofing.

Eaves and verges are best formed by metal or plastic trims with Bitustick adhesive preventing water penetration between the trim and the tile. However, wooden barge boards are sometimes used at verges with a capping piece covering 75mm of the tile underneath and bedded down on to Bitustick. At the eaves the starter course can project over the top of the gutter, if it is sufficiently close, or in the absence of the gutter be nailed against the vertical face of eaves board.

Ventilation of the roof void is an important way of reducing condensation. Ventilators are available, which are usually placed at the top of the slope near the ridge to act as ventilation outlets, with the ventilation inlet being placed below the eaves. A vented ridge construction is also available.



Styles, Colours



Technical Data

Property	Units	Standard	Mosaik	Traditional	Master	Prestige (Copper)		
						Traditional	Elite	Compact
			Self Adhesive		2 Ply			
Dimensions	cm	100x34	100x34	100x34	100x34	100x34	100x34	100x34
Weight / m ²	kgs	10.7	9	11	13	11	17	8.5
Coverage / Bundle	m ²	3.05	3.45	3.05	2	3.05	2.03	4.06
Exposure	cm	14.5	14.3	14.5	14.3	14.5	14.5	29
Offset	cm	12.5	16.5	50	16.6 & 33.3	50	16.5	16.5
Min Pitch*	Deg.	14	19	17	20	17	17	20

* For non-exposed locations and slopes less than 7m, otherwise use Tegola underlay.

MATTHEW HEBDEN

TEGOLA®
CANADESE
LA NATURA IN SEGNA

Matthew Hebden, 54 Blacka Moor Road, Sheffield. S17 3GJ Telephone & Fax: +44 (0)114 236 8122
website: www.matthewhebden.co.uk email: sales@matthewhebden.co.uk

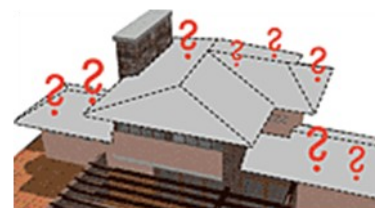
Fiche Technique

AVANTAGES EXCLUSIFS: pourquoi utiliser Tegola Canadese

Tegola Canadese fabrique **universelles produits** adaptés à tout type de système de toiture, conçus pour offrir des performances exceptionnelles techniques dans toutes les situations.

UNE LARGE GAMME DE FORMES ET COULEURS

16 produits et plus de 50 couleurs parmi lesquelles choisir le système de toiture le plus approprié.



UN PRODUIT POUR TOUS LES CLIMATS

- Résiste à des conditions de gel (testé à -70 ° C)
- Résiste à la chaleur (testé à +90 ° C)
- Résistant au vent
- Non affecté par la pollution de l'environnement
- Résiste aux changements brusques de température
- Résiste à de fortes pluies



PEUT ÊTRE UTILISÉ AVEC SUCCÈS SUR TOUTE FORME DE TOIT

Tout projet peut être réalisé facilement avec d'excellents résultats.



COULEURS qui ne portent pas sur OFF AVEC LE TEMPS

Les granules sont fabriqués à partir de basalte, qui n'absorbe pas l'eau et par conséquent ne se détériorent.

Les granules sont teints au moyen d'un processus de céramisation qui se produit à une température supérieure à 650 ° C.

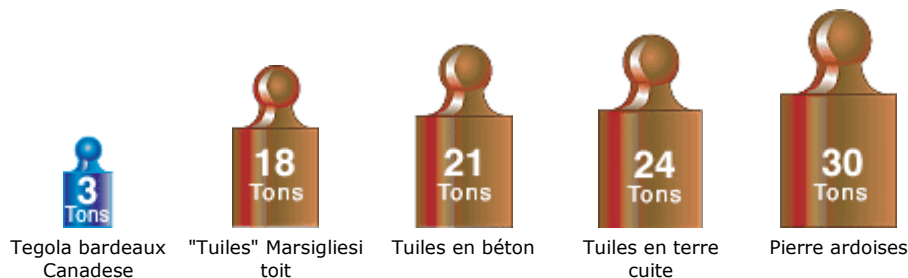
Le inorganique pigments utilisés pour la teinture des granules sont résistants aux UV et à des températures élevées.



Un toitures légères SYSTÈME

Comparaison du poids des différents systèmes de toiture pour une surface de 300m².

- Diminuer la taille des structures portantes
- Moins de poids total correspond à moins de charge et à une sécurité accrue



Aucune maintenance

- Vous pouvez marcher dessus en toute sécurité
- Il est facile à inspecter
- Les bardeaux ne glissent pas
- Il est résistant aux intempéries



PAS BESOIN DE ACCESSOIRES SPÉCIAUX

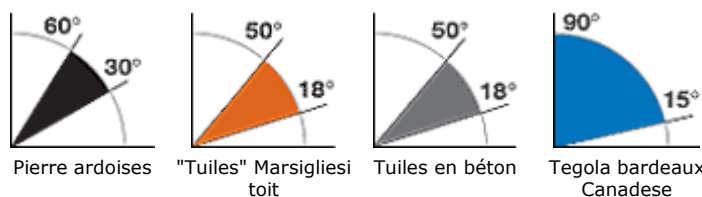
- 1) le long des hanches
- 2) Lorsque les changements de hauteur de toit
- 3) le long des vallées
- 4) le long des crêtes



Fiche Technique

PEUT ÊTRE UTILISÉ SUR LE TOIT hauteurs variables

comparaison des pentes de toit autorisées pour les différents systèmes de toiture



AVANTAGES SUPPLÉMENTAIRES

PAR RAPPORT À couvertures en bitume

- Un toit en bardeaux avec Canadese Tegola se compose de petits éléments qui absorbent facilement tout mouvement de la structure.
- Il s'agit d'un toit discontinue, ce qui est un gage de respirabilité toit.

PAR RAPPORT À toits en métal

- Noiseless en cas de la pluie ou de la grêle
- Ne devient pas rouillé



PRATIQUES D'EMBALLAGE

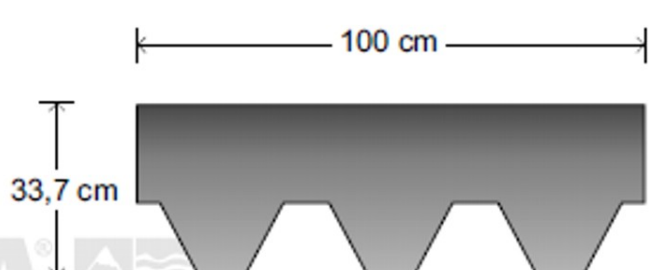
Une palette de bardeaux contient 159 m² de toit

- Ne casse pas pendant le transport
- Facile à manipuler et à stocker
- Facile à soulever le toit



Fiche Technique

TEGOLA CANADIENSE S.p.A. Research & Development	INSTALLATION INSTRUCTION <u>MOSAİK</u>	No. Pages: 1/5 code: DRS2022 Rev.1 01-03-2004
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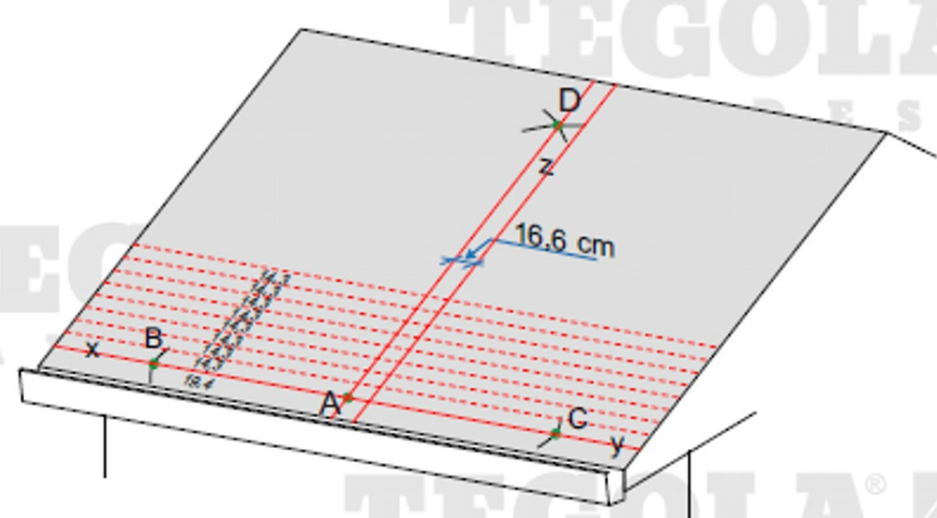
INTRODUCTION

The easy and correct installation of asphalt shingles depends entirely on the roof deck being smooth, continuous, clean, and dry.

The roof deck can be built with wood materials (such as seasoned tongue or groove planks, plywood, cement and wood fibre board, etc.) properly supported, or with a light cement layer on top of the concrete deck.

MARKING OUT THE ROOF

- Mark a line xy orthogonal to the direction of maximum slope of the roof (usually parallel to the eaves and to the gutter and at 19,4 cm from the gutter);
- Mark along the line xy a point A in the centre of the pitch;
- Mark points B e C, at either side from A (for example at 150 cm);
- Starting from B and C by using a chalk line as a compass, mark point D as near as possible to the Ridge.
- Join A with D;
- Mark a line parallel to line AD at a distance of 16,6 cm (z);
- Starting from the line xy, mark horizontal and parallel lines to the line xy, at a distance of 14,3 cm from each other up to the ridge;



Picture Nr. 1 - Marking out the roof

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INSTALLATION INSTRUCTION
MOSAİK

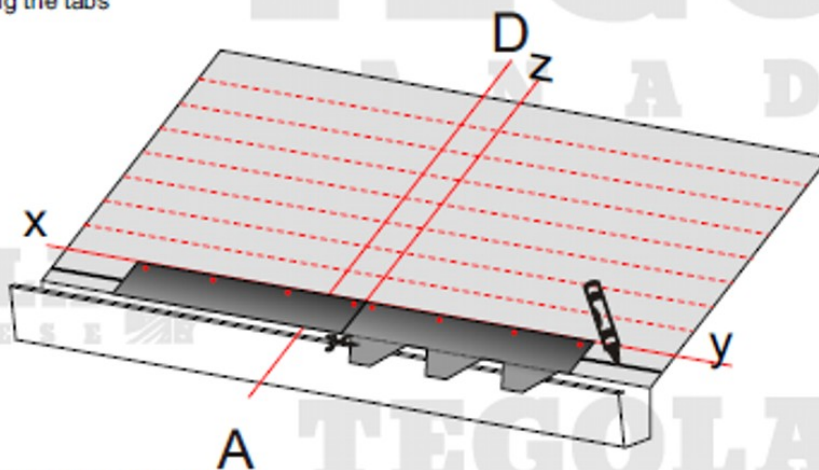
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Rev.1 01-03-2004

INSTALLATION

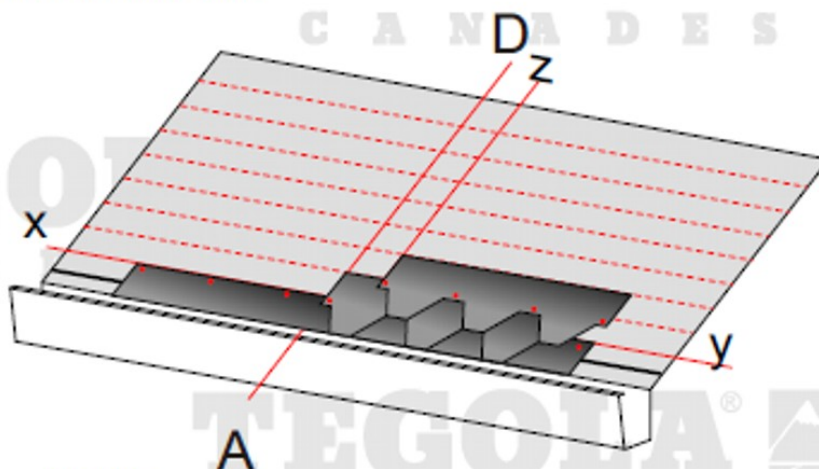
- Apply a line of bituminous mastic "Bitustick" along the eaves; trim the tabs from the bituminous shingle, remove the protection film to form the starter course (Pict. Nr. 2) and align it to z (see Pict. Nr. 3).
- As recommended for the starter course, remove the protection film from the reverse side of each shingle before installation.
- Install the first row of shingles along the central line AD (Pict. Nr. 4).
- Install the second row of shingles along the line z (Pict. Nr. 4).
- Repeat this installation method until all pitches are completed.
- The trimming and aligning operations are simplified following the cuts on the upper edge of each bituminous shingle.



Picture Nr. 2 Trimming the tabs



Picture Nr. 3 - Installation of the starter course



Picture Nr. 4 - Sequence of 2 shingles

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SLOPES

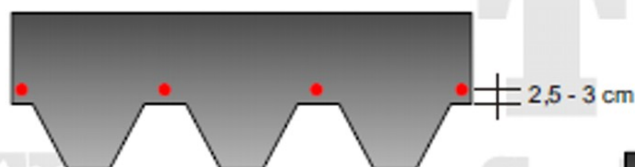
Minimum slope for the installation of the shingles with nails is 35% (19 degrees)
For roofs in the mountainside or with a pitch longer than 7,00 ml, please visit our web site or contact

FIXING WITH NAILS

Use large headed roofing nails for the roof, zinc plated or galvanized, high adherence, with a length suitable to the thickness and type of roof deck.

Apply 5 nails on each bituminous shingle, MOSAİK, positioned exactly as shown in Picture 5.
Make sure that the nails anchor also the underneath bituminous shingle.

N.B.: For slopes exceeding 160% (60 degrees) apply 6 nails on each bituminous shingle and double the number of nails on the second and third position from the left as shown in Picture 6.



Picture Nr. 5



Picture Nr. 6

RIDGES

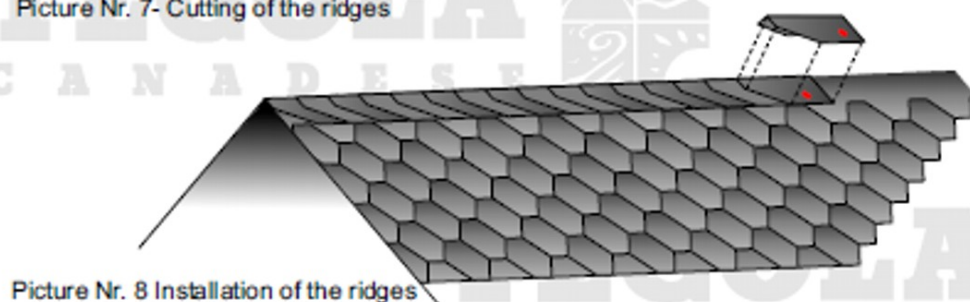
Install the last row of bituminous shingles up to the ridge line and then bend it over the exceeding part, in order to waterproof the ridge.

To obtain the ridges, cut the bituminous shingles into 3 pieces (Picture 7). Before installing remove the rivers side protection film, bend the piece of shingle and position them over the ridge line (see Picture 8). If necessary heat them on the reverse, sanded side.

Fix the ridges with 2 nails on each piece which will be overlapped by the following piece (Picture 8).



Picture Nr. 7- Cutting of the ridges



Picture Nr. 8 Installation of the ridges

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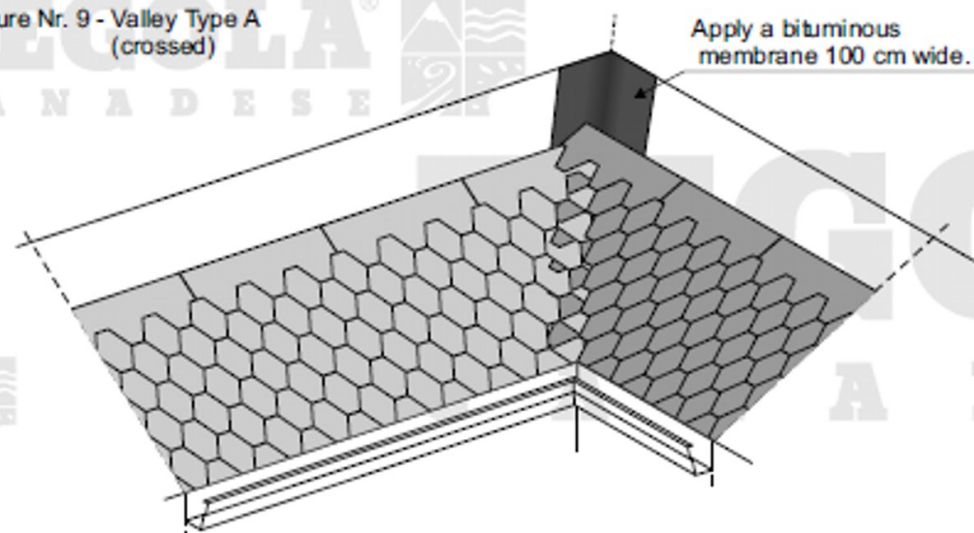
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VALLEY

Torch the membrane (100 cm wide) on the center line of the valley, then torch the shingles on into this membrane.

Type A) The bituminous shingles of the two pitches will cross each other going up to the other side of at least 25 cm from the center of the valley. Do not fix with nails at a distance less than 40 cm from the center of the valley (Pict. Nr. 9).

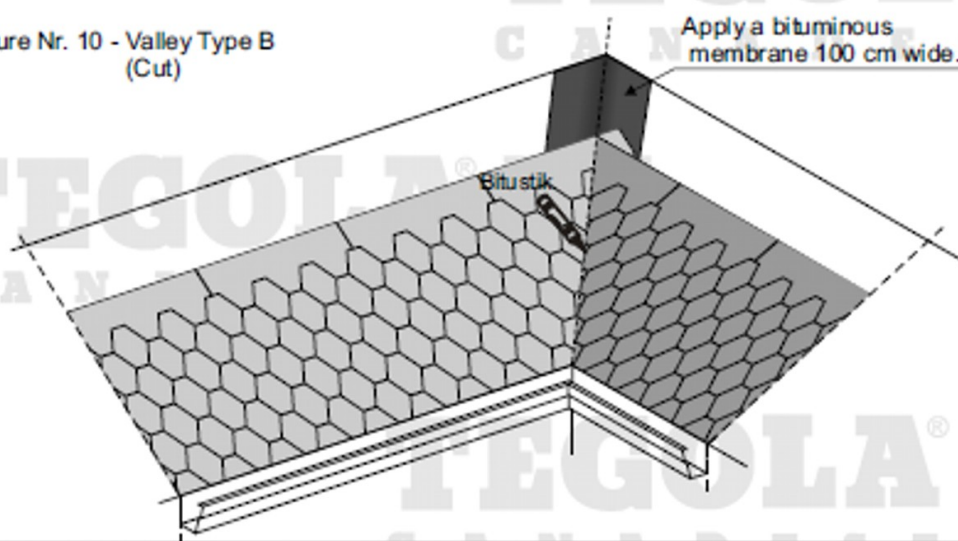
Picture Nr. 9 - Valley Type A
(crossed)



Type B) Install the bituminous shingles on one pitch of the roof overlapping the center of the valley by at least 25 cm. Install the shingles on the other pitch so that they slightly overlap the center of the valley.

Mark the center of the valley with the chalk line, cut the bituminous shingles of the second pitch following the marked line obtaining a linear cut along the center of the valley. Seal carefully along the cut with Bitustick. Do not fix with nails at a distance less than 40 cm from the center of the valley (Pict. Nr. 10).

Picture Nr. 10 - Valley Type B
(Cut)



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DETAILS

All the details (junctions, valleys, chimneys, etc..) can be carried out with flashings (copper, painted metal sheets, etc.) or bituminous membrane, and everything will be simplified by using the products TEGOLA CANADIENSE.

Roof accessories such as: roof windows, snow stoppers, aerators and other accessories from Tegola Canadese make the installation and finishing of the roof easier.

The shingles MOSAİK, are supplied with self-adhesive tabs that soften with the heat and stick the shingles together, avoiding the wind to lift them up. With cold weather or in very windy areas this does not automatically happen and the adhesive points have to be heated up with a torch, and the shingles have to be pressed down to assure that they stick together.

WARNING

- DO NOT STORE THE PALLET ONE ON THE TOP OF THE OTHER TO AVOID THAT THE BITUMINOUS SHINGLES STICK TOGETHER INSIDE THE BUNDLE.
- DO NOT EXPOSE THE PALLETS TO ATMOSPHERIC AGENTS NOR TO HEAT.
- USE ONE SINGLE PRODUCTION CODE FOR THE INSTALLATION OF ONE ROOF DECK.
- AT THE TIME OF INSTALLATION THE SHINGLES' TEMPERATURE MUST BE NOT LESS THAN 5°C.

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Master

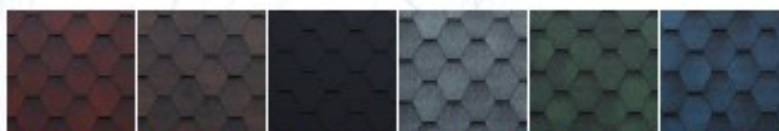
Master



104 terracotta 129 wood shake 151 dark slate 153 light slate 156 stone green 167 ancient stone 174 stone grey 180 blue

Premium

Premium
Mosaik



010 2-tone red 020 2-tone brown 060 black 081 2-tone grey 070 2-tone green 081 2-tone blue

Premium
Gothik



203 2-tone red 230 2-tone brown 251 2-tone black 254 2-tone grey 274 2-tone green 280 2-tone blue

Premium
Liberty



004 european red 051 2-tone black

Premium
Traditional

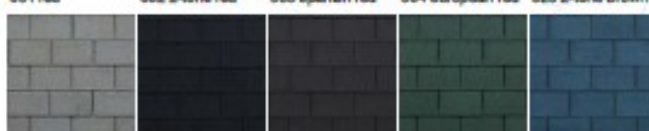


006 brick red 008 knakow 010 2-tone red 023 2-tone brown 066 slate grey 073 2-tone green 080 blue

Premium
Rectangular



001 red 002 2-tone red 003 spanish red 004 european red 020 2-tone brown 021 dark brown 050 dark grey 051 2-tone black



063 light grey 060 black 061 slate grey 070 2-tone green 080 blue

	CE	certification	fiberglass	tabs	weight	surface	dimensions
			g/m²	adhesion	kg/m²	per bundle	shingle
Master	CE	EN 544	125	thermo adhesive line	11,70	2,00	100 x 33,7
Premium Mosaik	CE	EN 544	125	self adhesive tabs	9,00	3,45	100 x 33,7
Premium Gothik	CE	EN 544	125	self adhesive tabs	9,00	3,45	100 x 33,7
Premium Liberty	CE	EN 544	125	thermo adhesive points	10,70	3,05	100 x 34
Premium Traditional	CE	EN 544	125	thermo adhesive points	10,70	3,05	100 x 34
Premium Rectangular	CE	EN 544	125	thermo adhesive points	10,70	3,05	100 x 34

accessories

Linea Bar: vapour control



shingle underlayers



granule-coated membranes



primer and bitustick



Zenith roof windows



insulating materials



roofdeck support

