

ESCO

The European Slate Company

ESCO 9 - NATURAL SPANISH SLATE



Esco 9 comes from a company with a long tradition in sourcing and manufacturing natural slates. Established in the 1950's and founded by Don Baltasar Fidalgo López, one of the pioneers in the Spanish slate industry, they started exporting in 1960 to European countries such as France, Germany, Belgium, and Luxemburg.

Nowadays, the firm combines the know how and the expertise of its long family tradition with the most advanced techniques of extraction and fabrication, in order to obtain the highest quality product.

From their mines, which are the oldest Spanish quarries still in operation, over 500,000 Tons of finished product have been extracted and according to our geological resources, the stone reserves still guarantee the continuity of supply for at least the next 50 years.

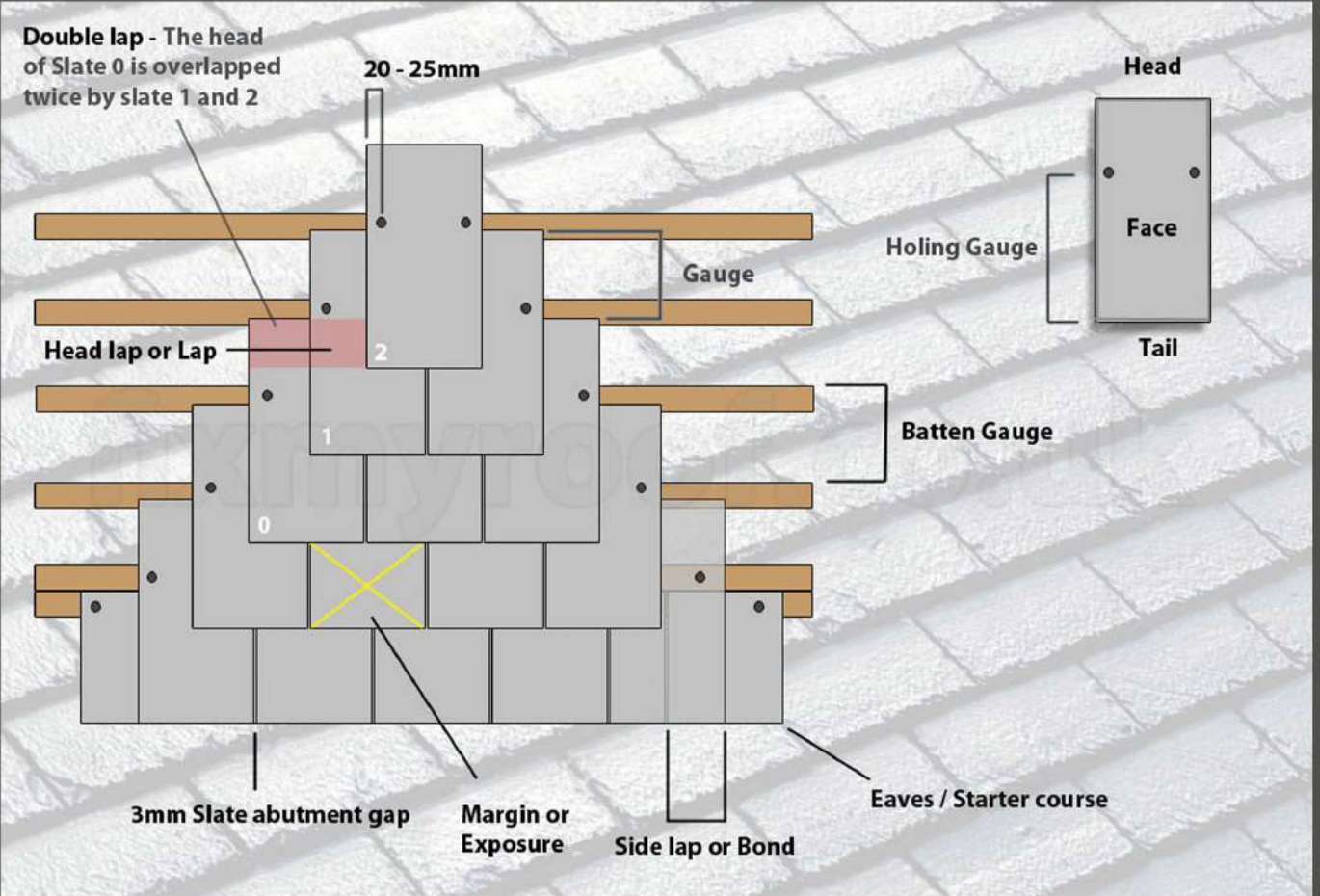
The characteristics of the Esco 9 quarry make this product ideal for the UK market. This slate has been used in the UK market since the early 1990's and the present production is about 6,000 tonnes per year.

The Esco 9 slate can be recognised for its blue-black colour, with small non oxidising inclusions. It's smooth texture and thickness consistency, along with its high bending strength (flexion resistance) permits the production of large sizes with a very low wastage factor.

The chemical and mechanical properties of the slate makes it possible for a continuous supply of 4.5 mm thick slate in a wide range of sizes. This flatness consistency along with its smooth texture and its superb workability makes it a very versatile slate for any roof.

The durability of the roofs where Esco 9 have been used will exceed the life expectancy of the building. The slates will maintain the aesthetic and noble properties characteristic of such a natural product throughout its whole life span.

Apart from the constant internal quality-controls the slate is regularly tested by independent laboratories and fully conforms to the BS EN 12326-1 2014, being rated as A1(W1)-T1-S1. As a result of this ESCO 9 comes with a full 75 year guarantee.



Moderate Exposure
(Less than 56.51/m² per spell)

The recommendations below apply to rafter lengths of 9m or less.
The specifier should also take into account any abnormal local conditions that might apply.

Pitch deg	Slate size	Minimum Headlap	Slates	Batten gauge	Holing gauge	Average weight
	mm x mm	mm	no/m ²	mm	mm	kg/m ²
45	600 x 300	54	12.21	273	337	33.24
	500 x 300	54	14.95	223	287	33.91
	500 x 250	54	17.94	223	287	33.91
	450 x 250	54	20.20	198	262	34.38
	450 x 220	54	22.96	198	262	34.38
	400 x 200	54	23.12	173	237	34.97
	400 x 200	54	28.90	173	237	34.97
40	600 x 300	60	12.35	270	340	33.61
	500 x 300	60	15.15	220	290	34.38
	500 x 250	60	18.18	220	290	34.38
	450 x 250	60	20.51	195	265	34.90
	450 x 220	60	23.31	195	265	34.90
	400 x 250	60	23.53	170	240	35.59
	400 x 220	60	29.41	170	240	35.59
35	600 x 300	67	12.51	267	344	34.05
	500 x 300	67	15.40	217	294	34.93
	500 x 250	67	18.48	217	294	34.93
	450 x 250	67	20.89	192	269	35.54
	450 x 220	67	23.74	192	269	35.54
	400 x 250	67	24.02	167	244	36.34
	400 x 200	67	30.03	167	244	36.34
30	600 x 300	77	12.75	262	349	34.70
	500 x 300	77	15.76	212	299	35.76
	500 x 250	77	18.91	212	299	35.76
	450 x 250	77	21.45	187	274	36.49
	450 x 220	77	24.37	187	274	36.49
	400 x 250	77	24.77	162	249	37.46
	400 x 200	77	30.96	162	249	37.46
27.5	600 x 300	83	12.89	259	352	35.11
	500 x 300	83	15.99	209	302	36.27
	500 x 250	83	19.18	209	302	36.27
25	600 x 300	91	13.10	255	356	35.66
	500 x 300	91	16.30	205	306	36.98
	500 x 250	91	19.56	205	306	36.98
22.5	500 x 300	101	16.71	200	311	37.91
20	500 x 300	113	17.23	194	317	39.08

Severe Exposure
(Greater than or equal to 56.51/m² per spell)

The recommendations below apply to rafter lengths of 9m or less.
The specifier should also take into account any abnormal local conditions that might apply.

Pitch deg	Slate size	Minimum Headlap	Slates	Batten gauge	Holing gauge	Average weight
	mm x mm	mm	no/m ²	mm	mm	kg
45	600 x 300	69	12.55	266	345	34.05
	500 x 300	69	15.47	216	295	35.76
	500 x 250	69	18.56	216	295	35.76
	450 x 250	69	21.00	191	270	36.98
	400 x 250	69	24.17	166	245	38.69
	400 x 200	69	30.21	166	245	38.69
	400 x 200	69	36.25	166	245	38.69
40	600 x 300	76	12.72	262	348	34.70
	500 x 300	76	15.72	212	298	35.76
	500 x 250	76	18.87	212	298	35.76
	450 x 250	76	21.39	187	273	36.98
	400 x 250	76	24.69	162	248	38.69
	400 x 200	76	30.86	162	248	38.69
	400 x 200	76	37.03	162	248	38.69
35	600 x 300	86	12.97	257	353	35.11
	500 x 300	86	16.10	207	303	36.98
	500 x 250	86	19.32	207	303	36.98
	450 x 250	86	21.98	182	278	38.69
	400 x 250	86	25.48	157	253	40.40
	400 x 200	86	31.85	157	253	40.40
	400 x 200	86	38.22	157	253	40.40
30	600 x 300	98	13.28	251	359	35.66
	500 x 300	98	16.58	201	309	37.91
	500 x 250	98	19.90	201	309	37.91
	450 x 250	98	22.73	176	284	39.08
	400 x 250	98	26.49	151	259	40.40
	400 x 200	98	33.11	151	259	40.40
	400 x 200	98	39.73	151	259	40.40
27.5	500 x 300	106	16.92	197	313	38.69
25	500 x 300	116	17.36	192	318	39.08
22.5	500 x 300	128	17.92	186	324	40.40

Tables based on a nail hole positioned 25mm in from the side of the slate. It may be possible to use certain slates at a lower pitch holing the slates nearer to the edge under factory conditions.

An allowance should be made for cutting and wastage.



STORAGE AND HANDLING

On receipt of delivery slates should be carefully stacked on their longer edges with a batten or timber board between layers. Ensure the lowest layer is placed on a secure and firm level base. If the slates remain in the pallet then we recommend covering with a tarpaulin.

LEAD STAINING PREVENTION

Lead will develop a lead carbonate patina which, if washed over slates by rain or moisture can result in an unsightly staining. To prevent this reaction it is advisable to treat all of the lead including flashings and soakers with patination oil before any rain occurs. Ensure that you follow the manufacturer's instructions.

BATTENS

The minimum batten size acceptable in accordance with the recommendations in BS:5534: 2003 for rafter spacing up to 600mm is 50cmx25cm.

NAILS

Clout nails should be Copper to BS 1202:part 2 or aluminium to BS 1202:part3 or silicon bronze. In more corrosive or marine atmospheres copper nails are preferable.

GRADING AND SORTING

All slates regardless of quality should be sorted into three thicknesses, thicks, mediums and thins prior to going onto the roof.

GUARANTEE

We are happy to guarantee our ESCO9 for a period of 75 years once fitted in accordance with BS5534 & BS8000.

BS 5534 - The British standard for slating and tiling.

This guide provides the industry with guidance on best practice relating to installation of a roof, providing information on everything from the basics such as batten selection and methods of fixing through to more detailed technical information such as wind uplift calculations.

BS 8000 - Workmanship on building sites - Code of practice for slating and tiling of roofs and cladding

This standard gives information and recommendations on basic levels of workmanship in relation to the cladding of roofs and walls with slates and tiles.

FIXING NATURAL SLATE

Please visit our website - www.europeanslate.co.uk (for recommended fixing instructions)

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All information in this publication is based on our experience and knowledge of the product. However due to factors beyond our control no warranty is given or implied based on this information.

As with all natural materials, textures and colours may vary according to light or weather conditions where it is fixed.



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