

Q1. Does your material retain its colour over time?

A1. Our material has an effective lifetime colour guarantee, due to its high purity (96%). As our stone wears away naturally, another pure colour layer is revealed. Even in highly trafficked areas, our thinnest paver will take hundreds of years to wear. Blue Limestone has proven this point over the centuries in Northern Europe, and is hard wearing and colour retaining

Q2. Is there a requirement for ongoing maintenance?

A2. Typically an annual spring clean is sufficient to keep your paving looking great. Simply power hose to renew. Due to the surface dimensional accuracy of our products, power hosing is a simple process. Pavers have a maintenance advantage over cobble-lock, due to fewer joints (pavers are larger), and therefore fewer areas for dirt to be caught. Dimensions of up to 1200mm are available

Our .2% porosity level means our stone attracts minimum levels of atmospheric and underground discolouration. This ensures it looks well naturally, with minimum cleaning. In effect, we are offering the soft aesthetic qualities of limestone, coupled with the hard technical qualities of granite

Q3. Are there any slippage issues with your stone?

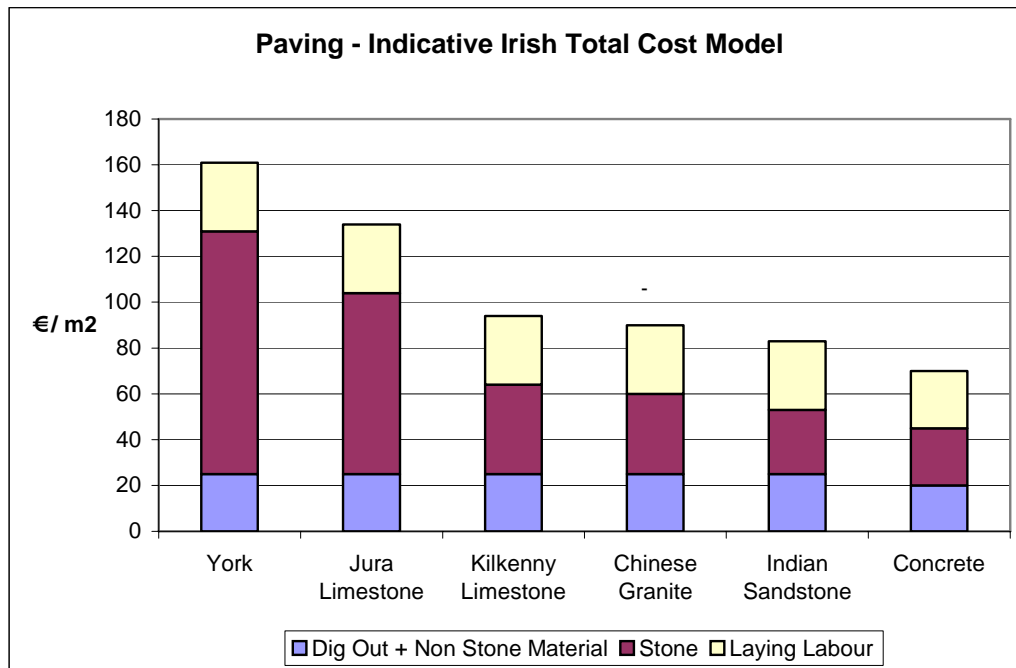
A3. No. Slip resistance figures of over 70 are available, which greatly exceeds the EN minimum requirement of 35

Q4. Does your stone have a low carbon footprint?

A4. Our stone is quarried and processed under strict environmental regulation. We also have transport advantages over imported stone. In Ireland 1 tree will carbon neutralise 732 square meters. This compares to 12 square meters of Chinese granite

Q5. How do your products compare price-wise with other landscaping products?

A5. Prices vary considerably from area to area, but in general we find the following prices to be indicative.



Q6. Is your stone frost resistant?

A6. Yes, again due to the low porosity, our stone is in the highest frost resistance category

Q7. Are various textures available?

A7. Yes. Our standard offering is flamed or hammered for either external or internal applications. Internally we also offer dark brushed. Other finishes are available on request.

Q8. Are various colours available?

A8. Yes. In its natural state, our stone is quarried with a variety of clear blue, shell fossil, coral fossil, carbon and Calcitic lines. Upon request, we can select from this natural offering, to give one of the categories above

Q9. Is your stone usable throughout the landscape?

A9. Yes, due to its strength our stone can be used for patios, driveways, paths, steps, kerbs, walls, feature stones and seating

Q10. If I buy your stone now, and wish to further upgrade my home in years to come, will I be able to source similar stone

A10. The issues of supply longevity and replication, often seen with imported stone, do not arise with Kilkenny Limestone. We own our reserves, with a lifespan until the year 2050.

Q11. Is there a need for expansion joints?

A11. Laid on sand or semi-dry sand/cement mix, there is no need for expansion joints

Q12. What action do I take when liquid, other than water, is spilled onto the stone?

A12. When a spillage occurs, clean the area with a mop and warm, clear water

Q13. If I don't get to clean off a spillage in time, what should I do?

A13. In this case, any reputable stone cleaning product is suitable. An example of such a product is available on [www.drytreat.com](http://www.drytreat.com)

Q14. Is there a need to seal the product?

A14. Due to the low porosity of our product, this isn't a requirement. However sealants are available for areas with a high potential for spillage, or where challenging atmospheric or ground conditions exist. Again consider [www.drytreat.com](http://www.drytreat.com)

Q15. Are there any special foundation requirements

A15. No. For patios, typically 100mm of 804 (2" down) stone is rolled in, while for driveways 150mm is rolled in. This is topped over by 40mm of a 5/1 sand/cement semi dry mix, and then the pavers are laid, firming into position with a rubber hammer

Q16. Are there safety concerns regarding dust generated during cutting

A16. Limestone remains one of the cleanest stone products to work with. An issue, which haunts many imported stones, namely Silicosis, is not relevant to either of our stone offerings. However, in line with good practice, Kilkenny Limestone recommend that people cutting our products wear a protective mask

Q17. Is there a need for jointing?

A17. Due to the dimensional accuracy of our pavers, we offer the customer design freedom to either use a jointing material or not (often called butt jointing or open jointing)

A growing trend in Europe is for paving to be laid with open jointing. This is particularly so in urban areas, where the open jointing allows rainfall to filter naturally through the ground and thus alleviate the need for the local authorities to process it through their system. Indeed, if the customer chooses to divert rainwater off paving to

the public system, s/he will incur additional tax charges. With our high dimensional accuracy, open jointing is not an issue for our stone

[Q18. Is the customer chooses to joint the paving, is special jointing material required](#)

A18. No. Sand or sand/cement can be brushed into the joints. If the customer wishes to use a more robust jointing material, standard silicone is fine

[Q19. What gradient is recommended?](#)

A19. A 1% gradient is typically recommended. This assumes normal atmospheric and ground conditions

[Q20. Are edge restraints required?](#)

A21. To ensure no lateral movement of pavers and to prevent the migration of the bedding course material, some form of edge restraint is required. Placement of a sand/cement mix along the edge can achieve this objective. Similarly, we provide Kerbing for this application.

[Q21. Is kerbing required with your product?](#)

A21. Our paving can be laid without any kerbing. Indeed, for grass cutting along paving, the absence of a kerb is advantageous as one can run the lawnmower onto the paving, without having to deal with a kerb. However, in the case where additional protection is required beside a paved area, kerbing will be required. These areas would include a) at the end of a driveway, where a car could drive up onto a grass area, b) an area where bedded plants needed to be kept intact from the paving, c) an area where pebbled stone is required to be kept separate from the paving

[Q22. How does one cut the stone?](#)

A22. A standard angle grinder, with a diamond tipped blade, is sufficient to cut our stone

[Q23. Does Kilkenny Limestone Source Ethically](#)

A23. Kilkenny Limestone is an ethical company, which respects its employees, customers, suppliers, the environment and shareholder. All employees are paid a decent living wage, and we can confirm that our working conditions exceed international labour standards. We realize that our customers are the lifeblood of the company, and we commit to continually strive to support them in every feasible manner

We have a real and ongoing commitment to the environment. Our quarries are run in a responsible manner with as little impact on the environment as possible. We accept our responsibility to the environment and have a written commitment to the regeneration and reforestation of our quarries once we have finished. Our carbon footprint is one of the smallest in the natural stone industry.

We encourage you the customer to consider this issue when choosing your stone

Q24. Is there any possibility of termites coming into my property, as a result of your product entering my premises?

A24. All our material (including packaging) is sourced in Europe. Therefore the issue of haphazard fumigation is not an issue for us

Q25. What defines Authentic Limestone?

A25. Stone with greater than 90% calcium carbonate qualifies as authentic limestone. Kilkenny Limestone has 96%, putting it at the high end of the pure limestone spectrum. Limestone is also typified by the gentle laying down of creature and plant life. This process is seen today in the fossil remains through the stone. Each piece of authentic limestone is unique. By contrast, some other stone types are formed through earth movement or during periods of strong current. In these scenarios the fossil characteristics are disturbed, leaving behind a more homogenous stone.

Q26. What is Blue Limestone?

A26. Blue Limestone is a limestone with a blue hue. Authentic Blue Limestone is found in either Ireland or Belgium. In Ireland, it's to be found in the Kilkenny / Carlow region. No other natural stone has the same distinctive blue hue and fossil formations. Finely disseminated carbon gives the stone its distinctive blue hue.

Q27. Why is Blue Limestone only found in either Ireland or Belgium?

A27. 370 million years ago Ireland and Belgium were joined together. During this time the Blue Limestone was formed

Q28. What is different about Kilkenny Limestone ?

A28. Kilkenny Limestone is exclusive to Kilkenny, Ireland. It weathers exceptionally well in the temperate climate and has been used for hundreds of years on Ireland's most prestigious buildings and gardens. It is highly versatile and can be used indoors and outdoors. Every piece of Kilkenny Blue or Fossil is unique

The quarry in Paulstown was opened at the beginning of the 20<sup>th</sup> century, and was bought by Kilkenny Limestone in 1975.

Q29. Is there any such thing as Authentic Chinese Limestone?

A29. We understand certain stone traders in Ireland are trying to pass off a Chinese stone as Authentic Blue Limestone. We strongly refute this practice, and wish to point out the following

1. Authentic Blue Limestone is only available from either Ireland or Belgium. From a geological viewpoint, both clearly fall into two different categories. The transition from limestone to dolomite is defined by the following four categories

- A. => 90% Calcium Carbonate is the Pure Limestone category
- B. => 50%, < 90% Calcium Carbonate is the Dolomitic Limestone category
- C. => 10%, < 50% Calcium Carbonate is the Calcitic Dolomite category
- D. < 10% Calcium Carbonate is the Dolomite category

With 96% Calcium Carbonate, Kilkenny Limestone falls into the top end of the Pure Limestone category. Our information is that the Chinese stone falls into the Calcitic Dolomite category. In practice this will lead to uneven weathering of the Chinese stone, along with uneven colouring during weathering

- 2. This Chinese Dolomite has a high percentage of magnesium, with the calcium and magnesium layers laid down separately. This will cause uneven wearing, along with uneven colouring during weathering
- 3. The Calcitic Dolomite also contains iron oxide rings, which give it a frog-spawn / tapioca look
- 4. These iron oxide rings tend to turn brown with weathering, with a possibility of brown streaking in the case of large rings. This issue raised its head a number of years ago with Chinese Natural Slates. The extent of the problem was such that a major Irish building supplier no longer sells these slates
- 5. There are no fossils in Calcitic Dolomite
- 6. Question marks have been raised over this stone from a silicosis perspective. Certainly it's raises black dust when cut

#### Q30. Is there any special fixing method for your wall capping?

A30. No. Simply score the back of our wall cap, and the top of your wall with a diamond tipped angle grinder blade. The depth of the score should be approx. 10mm, with the scores 150mm apart. Then use a sand cement ratio of not weaker than 4:1

#### Q31. Give me some information on Kilkenny Limestone Ltd

A31. Kilkenny is a wholly owned Irish company, operating from Paulstown, Co. Kilkenny. We are a young, ambitious team who offer professional service, advice and support to the stone-cutting, construction & landscaping industries. We operate a Blue Limestone quarry in Paulstown. Our Kilkenny Blue stone is sold in Europe and Northern America

#### Q32. What is KKL offering the Irish Garden & Landscaping (GaLa) market?

A32. Between 2005 and 2007, we studied GaLa developments in some of the more trend setting European countries, particularly Germany, Switzerland and Belgium. We believe these trends will establish themselves in Ireland between 2010 and 2015. Our objective is to enable and support landscapers to prepare for and fulfil these trends in Ireland. The philosophy, in these countries, is moving away from Asian stone to more

local sources. There is a growing trend away from home-moving towards upgrading of one's current home. In this respect, the greatest upgrading return is viewed as 'Primary Impact Upgrading', meaning gains from upgrading the outside of one's home, particularly the garden. The trend in these countries is for gardens to have the following attributes

- . High Visual Impact
- . Low Maintenance
- . High Safety
- . Increasing use of Natural Stone
- . Home Extension into the garden
- . Enjoyment for all ages, including weather proof playing area for kids
- . Supplier Reliability
  - . Consistent Quality product
  - . Quality Replication & Matching for future projects
  - . Realistic Lead-times for non-standard products
- . Meaningful Product Margin for Partners
- . Lower On-Site Labour Costs
- . **Some National Cultural Reflection**
- . Stone Quarry being a One-Stop Shop
  - . Investing in GaLa Stone Production Lines
  - . Investing in Innovative New Products
- . Ethical Sourcing
- . Low Carbon Footprint