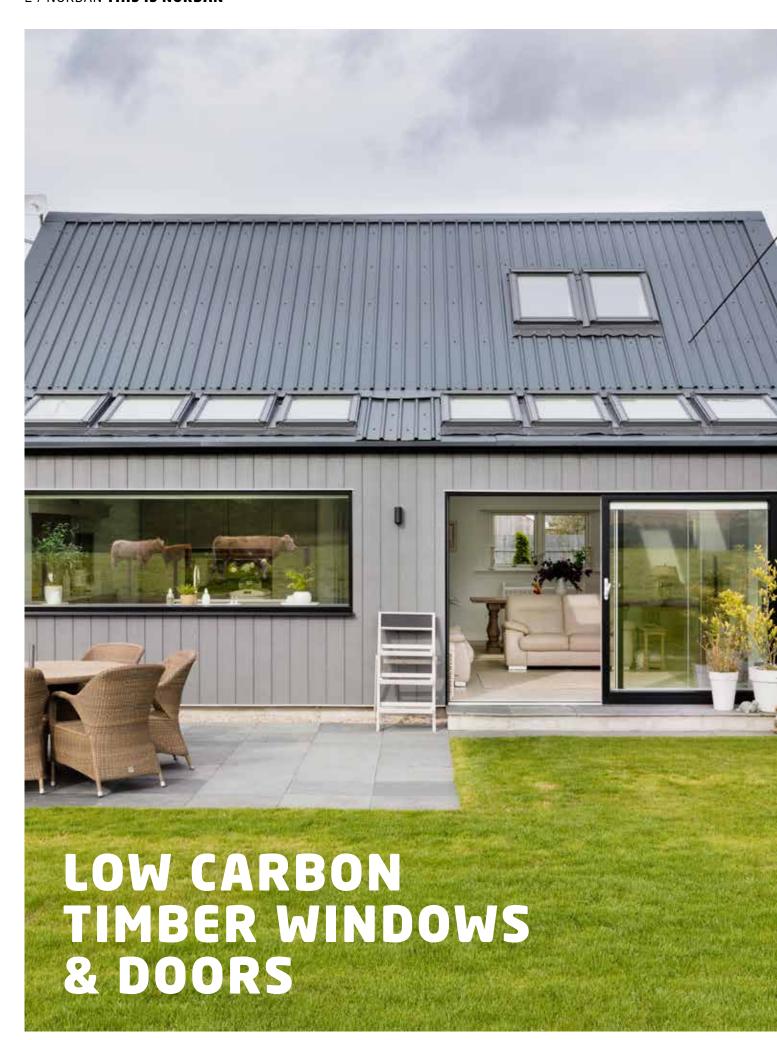


NORDAN HIGH PERFORMANCE

TIMBER WINDOWS AND DOORS





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Making the right choice

Choosing the right windows and doors when building or renovating can be a difficult task. Most of us only do it once or twice, and that makes the decision even more important. Let us help you with these inputs to what you need to consider to make the right choice.

Timber or aluminium cladding

All NorDan windows have pressure treated timber at the core, and this makes for high performance products that last. But for extra long life expectancy and a virtually maintenance free ownership you should consider aluclad windows. On the inside you get all the advantages of a timber window, and on the outside you keep the weather at a comfortable distance. The aluminium can be delivered in a wide range of colours, as can the pure timber windows.

Application and usage

All windows in a home don't have to be the same. Modern and dynamic architecture often calls for windows in different shapes and sizes, with different demands to them being fully opening, fixed frame or a combination. Older buildings might need new windows that comply with local regulations, and all of this is worth considering when choosing the application and usage of your new windows.

Function

Different windows function in different ways, and it's important to find out if you have special preferences for how you will use your new windows. Should they be inward opening with three handles, or perhaps an outward opening and fully reversible window is a better fit? Determining how you want the windows to function is key to making a choice you will be satisfied with.

Options and accessories

Different parts of a building can often be exposed to different environments. One side may be exposed to a lot of sun, while another may be adjacent to a road with a lot of traffic. Windows on the ground floor might be better off equipped with an increased security standard than windows higher up.





Timber at the core

We're now at the point where embodied carbon accounts for between 20 and 50 per cent of the total emissions generated in a buildings' lifetime, and construction accounts for almost 40 per cent of total global carbon emissions.

Put another way: once a building is finished the chance to reduce its impact on climate change goes down by between 20 and 50 per cent – and that figure in proportion to operational efficiency is only going to get higher if left unchecked.

When grown, harvested, processed and replenished correctly, timber is the only truly renewable building material. Carbon negative in growth, CO2 is safely trapped in the material through a process called sequestration for the lifetime of the timber.

NorDan's aluminium-clad timber window and door frames demonstrate this perfectly. As well as producing 65 per cent less embodied carbon than uPVC and 55 per cent less than solid aluminium they also offer a 60-year life span with minimal maintenance.





EPD ANALYSIS EMBODIED CARBON

NORDAN, WINDOW

56 kg

COMPOSITE, WINDOW

106 kg

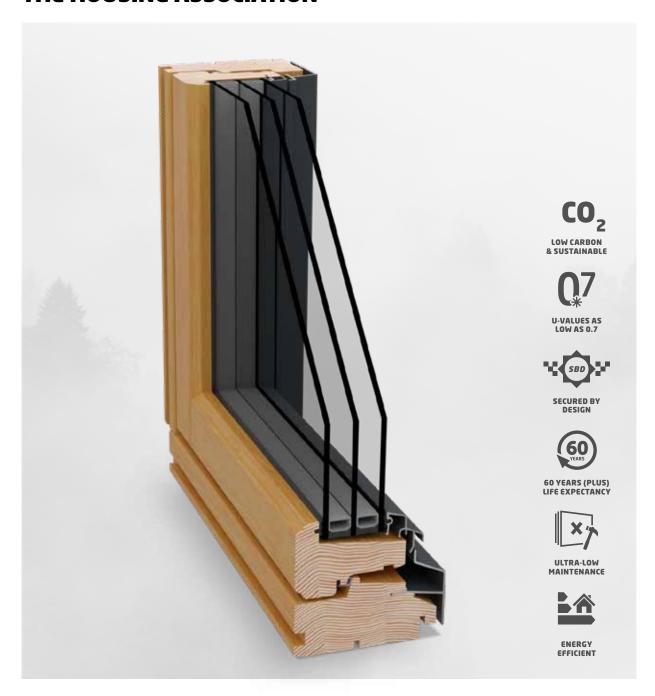
ALUMINIUM, WINDOW

126 kg

uPVC, window

160 kg

LOW MAINTENANCE HELPS THE HOUSING ASSOCIATION



Specifying aluminium-clad window and door products supports the Housing Association and Residents in many ways:

- € Lower Maintenance Costs
- **£** Lower Whole Life Costs
- (0₂) Lower Whole Life Carbon Costs
- £ Lower Energy Bills for Residents
- CD Less Disruption to Residents, their Family & Homes
- Better for the Environment

WHOLE LIFE COST VERSUS CAPITAL COST

LIFE EXPECTANCY

PVC-U	20 YEARS REPLACE
Aluminium	60 YEARS
NORDAN Timber (engineered)	8 YEARS PAINT
NORDAN Aluminium-clad Timber	60 YEARS







AULTNACOILLE

Project name Aultnacoille (garage & workshop) **Year completed**... 2021









CORNIVAL

Project name Cornival **Year completed**... 2021

Location..... Aberdeenshire

Architect Brown & Brown Architects

Products used Fixed Frame (TL), HomeGuard (HG-102), StormGuard (TG),
One Tilt & Turn (ZD), Single Balcony Door (TE, 1I)







THE LONGHOUSE

I've sat and watched the glass bending when we have had bad weather in the winter days, and it's an idyllic place in which to sit and watch the world go by.

– Linda MacLeod Brown

A vast amount of glazing gives the owners and their visitors a unique opportunity to enjoy amazing vistas of the open seas, rainbows, total night light and the Hebridean summer solstice, and generally appreciate the views in what is also a self catering property available for holiday lets. The Lewis Long House is available for holiday rent: www.lewislonghouse.com

Products shown

Sliding Single Door (2P)
Fixed Frame (TL)
Blacony doors (TE)
Norwegian StormGuard (ND)

Surface treatment

Alu-clad RAL7016





NORWEGIAN STORMGUARD

The NorDan flagship, continuously improved since 1962. Inward opening, three handled tilt and turn window with class leading weather performance and energy efficiency.

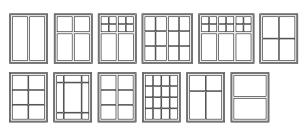
Advanced and easy to use, StormGuard by NorDan (3 handled tilt & turn window) tilts for everyday ventilation and turns to allow access to the outside glass for easy cleaning safely from inside. The advanced mechanism is the result of many years of product development. The window has three handles and seven solid locking points. All ironmongery is located safely behind the weather seal gasket for greater weather performance.

For more information visit www.nordan.co.uk





Examples of glazing bars, transoms and mullions











EAGLE BRAE

We chose NorDan primarily because of their long term proven track record for quality crafts-manship. - They offered us the flexibility we needed in bespoke design for our unique log cabin structures. They were also able to customise the finishing options for us to meet our specific aesthetic requirements. It was this ability of NorDan to respond to our unique design requirements coupled with their trusted reputation for quality which convinced us to go with NorDan. If and when we build some more log cabins, we will use NorDan again.

Products shown

Balcony Double Door (TX) Side Swing Reversible (TD) Fixed Frame (TL)

Surface treatment

Alu-clad RAL7000

SIDE SWING REVERSIBLE

Enjoy the best of modern operation and classic design. Rotating sash means easy cleaning while maintaining the traditional aesthetic.

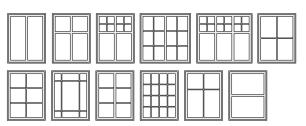
The ideal solution for safe cleaning. For new houses with multi-sash windows or in renovated older buildings, this is an ideal solution as it combines traditional style with child locks and a secure wash position. In the ventilation position, the Side Swing looks like a "traditional" side-hung window. By twisting again, the windows turn from the outside in for easy, safe and secure cleaning.

For more information visit www.nordan.co.uk





Examples of glazing bars, transoms and mullions







TOPTECH

With restrictors integrated in the hinges, this solid window is easy to clean and child safe.

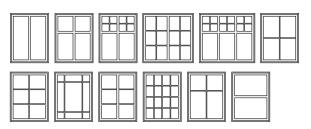
Well balanced ironmongery ensures the frame can easily be turned 180 degrees for safe cleaning from the inside of your building. Solid cleaning restrictors are also integrated in the hinges for additional safety. The window has a sophisticated and effective child safety restrictor integrated in the hinges for extra peace of mind.

For more information visit www.nordan.co.uk





Examples of glazing bars, transoms and mullions













BOGFOSSIE

Project name Bruadarach / Bogfossie

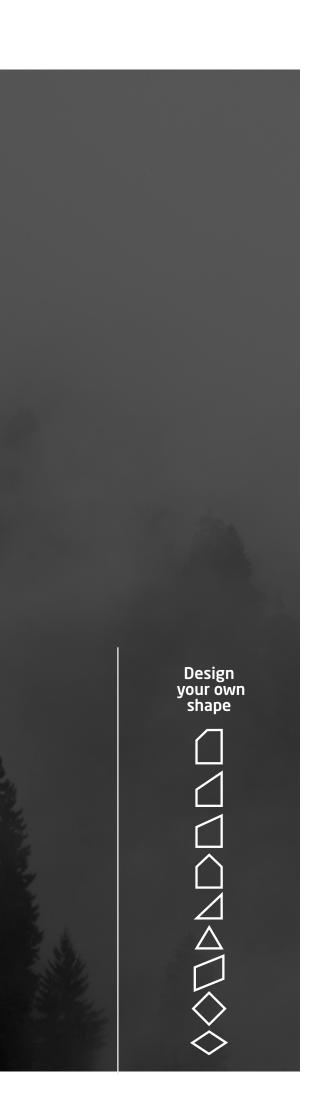
Year completed .. 2019 **Location** Banchory

Architect Fiddes Architects / McCombie Builders /

Alan Buchan Contractors / Scotframe

Products used ... Norwegian StormGuard (ND), TopTech (TG), Fixed Frame (TL), Sliding Single Door (2P), HomeGuard (HG-102, HG-103 & HG-104)





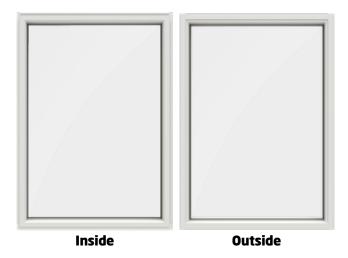
FIXED FRAME

Enjoy a multitude of options with a fixed frame window. Choose from a variety of shapes, and adapt them to your needs.

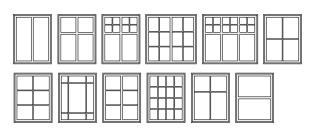
Fixed frame windows allow extensive use of large glass areas and particular architectural styles. Personal safety, escape routes and the possibility of washing must always be considered before choosing a fixed frame window. This window is also available as a smart solution for inside the building to create additional screening options or designs.

For more information visit www.nordan.co.uk





Examples of glazing bars, transoms and mullions









STRATHISLA

Project name Strathisla **Year completed** .. 2019 **Location** Banchory

Architect Fiddes Architects / Alan Buchan Contractors / Scotframe

Products used ... TopTech (TG), Sliding Single Door (2P), Fixed Frame (TL),

Norwegian StormGuard (ND), HomeGuard (HG-104)

BALCONY DOOR

INWARD AND OUTWARD OPENING

Let daylight into your home. Our balcony doors come in a wide range of fully glazed and insulated panel options.

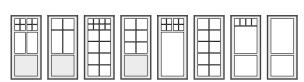
The NorDan balcony door is not just elegant but robust enough to provide burglar resistance with secured by design approval. The door design can be customised to suit your project with fully glazed and insulated panel options.

For more information visit www.nordan.co.uk





Examples of glazing bars, transoms and mullions





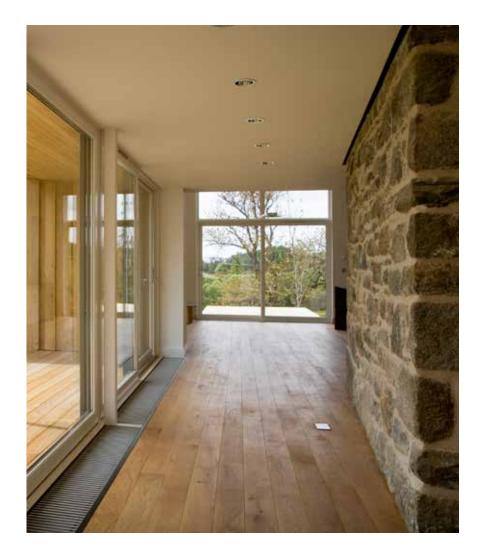
BALCONY DOOR











ANGLED HOUSE

Project name Wester Tombain **Year completed** .. 2007

Location Near Grantown-on-Spey
Architect MAKE Architects / AW Laing
Products used ... Sliding Single Door(2P) and Fixed Frame (TL)





SLIDING DOOR

Open your home. Sliding doors bring the outside in, all the while making sure you and your home are safe when you want it.

NorDan sliding doors glide on sealed ball bearings set safely beneath the door, making it easy to open and close even in larger dimensions. When the handle is turned down, the door moves out and away from the seal. When the door is closed, it fits firmly into the seal so that the maximum protection against draught, wind and rain and also improved security.

For more information visit www.nordan.co.uk





Sliding Door combinations









GLENCOMMON

Project name Glencommon **Year completed** .. 2020

Location Inchmarlo

Architect Fiddes Architects / Cairnrowan Custom Homes

Products used ... Sliding Single Door (2P), Fixed Frame (TL),
Norwegian StormGuard (ND), HomeGuard (HG-102).





NO ASSEMBLY REQUIRED

-WHAT YOU ORDER IS WHAT YOU GET

It would probably be easier for us to ship all the accessories separately. After all, a finished window is the result of a lot of big and small components assembled together to a final product. But when you order from NorDan, we put in the extra effort to assemble the complete product at the factory. All handles and other

ironmongery are in place, and the same goes for glazing bars, vents and other accessories you may have chosen. That way nothing gets lost on the site, and you can avoid delays waiting to get replacement parts delivered.

TIMBER SURFACE COLORS NORDAN STANDARD

Water based paint



Semi-transparent paint



CLEAR LACQUER RAL 7022



SILK WHITE



NUT BROWN NCS S8500-N

TEAK RAL 7015





EBONY RAL 9005

RICH MAHOGANY

Special colours





NorDan can supply most RAL and NCS colours directly to the treated timber or powder coated aluminium surfaces.

ALUMINIUM SURFACE COLOURS NORDAN STANDARD

NorDan offers a wide spectra of standard colours. We also offer a wide range of other colours from a standardised palette.

The following colour samples are for illustrative purposes only and may differ from the original colour. Please get in touch if you would like a standard colour sample from us.



Whilst every effort is made to verfiy and ensure the accuracy of the colours shown, the information displayed should be used as a guide only. No purchase should be made without consulting with your local NorDan office.

To view more non-standard colours, please visit: www.ralcolor.com

OPTIONS AND ACCESSORIES

NorDan provide a wide variety of solid fittings with different functions for windows and doors. Contact our expert advisors for more information and advice on compatibility, function, colour and possible customisation for your particular project.

Window handles



Handle inward for opening window Handle for ND: Silver, white, black.



Lockable handle with keyHandle for ND: Locked with push button.
Tokyo: Silver, white, black.



Handle for outward opening windows Handle mini Tokyo: Silver, white, black.



Lockable handle for outward opening windowsHandle for outward opening windows:
Locked with key / push button.
Tokyo: Silver, white, black.



Handle for inward opening windows Tokyo: Silver, white, black.



Kisi and lockable handle for inward opening with key Locked with key/push button. Tokyo: Silver, white, black.

Door handles

Interior door handle Anodized silver, White and Black



Door handle with exterior plate Anodized silver, White and Black



Exterior door handle with cylinder Anodized silver, White and Black

Plates



Door handle blanking plate Anodized silver, White and Black

Option for Double Balcony doors

With handles on both active and passive door leaves, the door is equipped with a curved Hoppe London.



Hoppe London door handle Anodized silver

Sliding door handles



Interior door handle

Avaible in Anodized silver White or Black



Interior door handle with cylinder

Avaible in Anodized silver White or Black

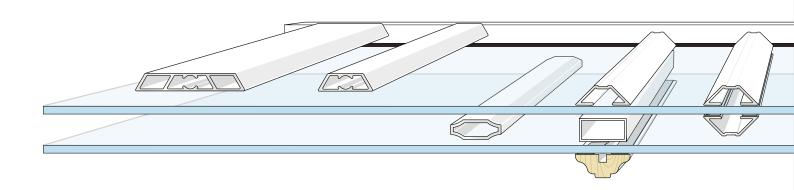


Exterior door handles with cylinder

Avaible in Anodized silver White or Black

GLAZING BARS

DECORATIVE GLAZING BARS



External glazing bars

External glazing bars are mounted on the outside of the glass to provide an appearance of dividing large glazed areas. It is fitted with a smart snap system that easily allows you to remove the bars for cleaning. Available in 28 and 56mm versions

Integral (thermo)

Integral (thermo) glazing bars have 26mm widths and are completely encapsulated in the glass cavity so that both the inner and outer glass surfaces can be easily cleaned. Available in white finish only.

Duplex

Duplex glazing bars combine 28mm wide aluminium exterior and 28mm wide wooden interior, secured to the glass with an additional spacer in between, giving the appearance of divided panes.

Surface mounted

Available in 28mm, surface mounted glazing bars are securely bonded to the outer glass to give the desired panelling design while the inner glazing bar is safely secured within the sealed unit. Glazing bars are available powder coated in RAL classic range.



External



Integral



Duplex



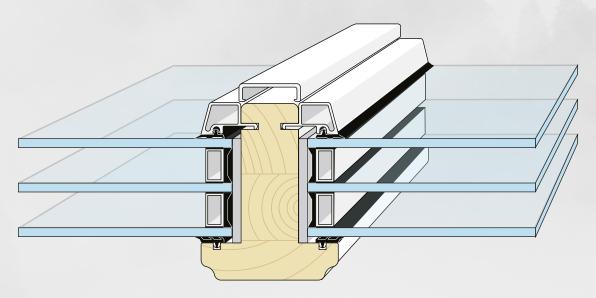
Surface mounted

Window examples



TRANSOMS AND MULLIONS

CUSTOMISE YOUR WINDOWS WITH TRANSOMS AND MULLIONS



In addition to the various decorative glazing bars and overlays, all NorDan products are available with solid mullions and transoms in timber and aluminium cladding. Incorporated

transoms and mullions divide the glass into individual glazed areas with the advantage that different glass can be installed.



Window examples



NTECH PROFILES

CLASSIC & MODERN

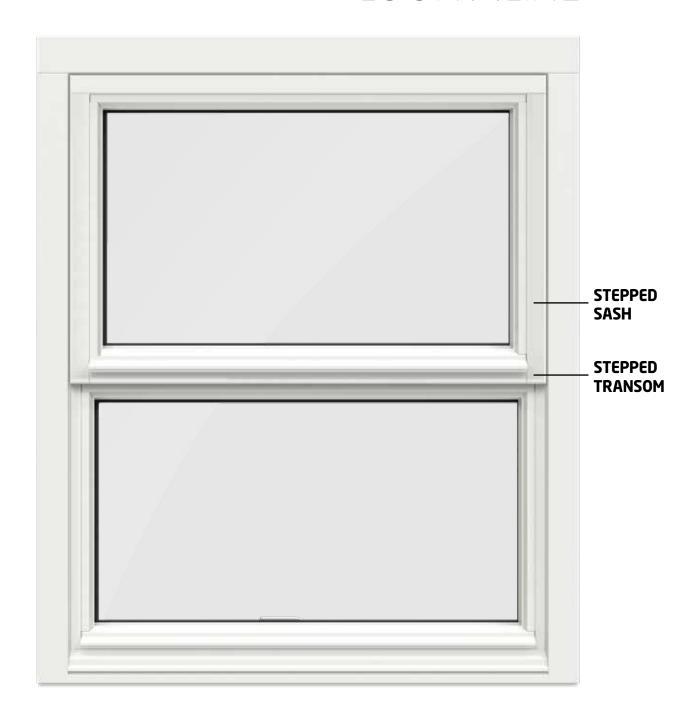


With the choice of two different profiles, NorDan makes it easier to align the aesthetic expression of the windows with the rest of the building.

Small details that can really make a difference in the big picture. NorDan has for many years provided the profile that has been called the "NorDan Classic", but now customers will be able to choose a more modern profile.



SASH AND CASE LOOK-ALIKE



Give your StormGuard window a traditional look

The sash and case look-alike window is a variation on the SBD approved Norwegian StormGuard window.

When compared to the traditional sash and case design, NorDan's alternative sash and case look-alike window provides:

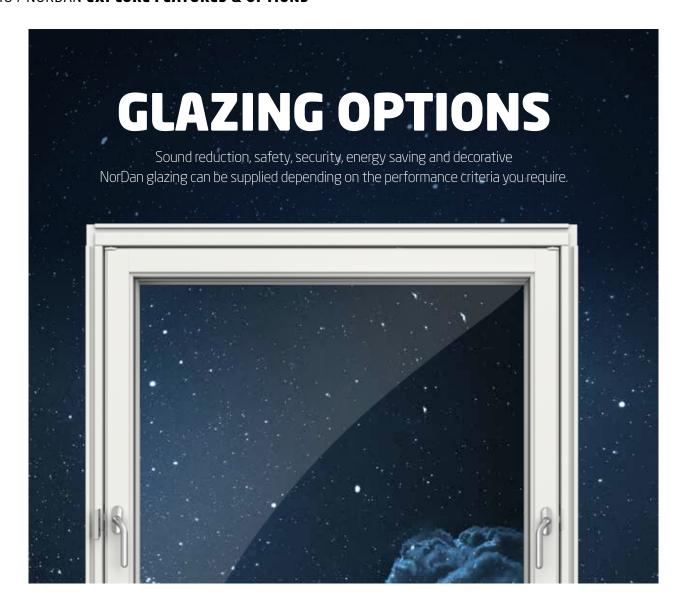
- Higher Watertightness
- Seven point locking system
- Safe cleaning from inside
- Controlled ventilation
- Fire escape (size permitting)
- Wide range of optional extras

BLACKLINE

The Blackline option adds a modern touch to your products.

When specified, Blackline offers black ironmongery and a black spacer bar. You can choose to have your entire product in black or let the black details enhance your choice of colour on the frame and sash. Below are some popular examples of Blackline together with some of our other standard colours.





Safety glass

NorDan takes security seriously. Personal safety and security against intrusion must be carefully considered when deciding on the level of safety glass required. It's important to consider not just the glass but all the installation and fixing of the frame.

Safety glass comes in many types with protection against multiple hazards (risk of falls, injury from collision, burglary, vandalism, projectiles and pressure loads). Some requirements use thicker glass, others with glass with special properties. The two most commonly used and known safety glass types are toughened and laminated.

Toughened glass

Toughened glass is about 4-6 times stronger than ordinary glass of the same thickness. Toughened glass is produced by heating the finished cut glass and cooled quickly so that the outer glass surface cools faster than the centre of the glass. This gives the outer surface a tension that makes the glass more difficult to break. When toughened glass is broken, the glass particles are small and relatively harmless, but the glass does not stay together.

Laminated glass

Laminated glass is composed of two or more layers of glass baked together with intermediate layers of plastic. Laminated glass can be

constructed of several glass layers, and several plastic layers of different types depending on your requirement. When laminated glass breaks, the plastic layer holds the glass particles together. The result is that a barrier still remains so that burglars would not be able to get through the glass. NorDan recommends the use of laminated glass in all doors, and areas on the side of the doors, and in areas where collisions can occur.

Other glass types

Obscure and decorative glass types are also available depending on your requirements. For further information, contact your nearest NorDan representative.









WARRANTY & LIFE EXPECTANCY

Alu clad products

30 years warranty

on timber/alu clad products against rot and fungi

60 years life expectancy

on timber/alu clad products

Timber products

20 years warranty

on timber products against rot and fungi

40 years life expectancy

on timber products



against rot and fungus

YEARS Warranty

against rot and fungus



60-year life expectancy

for alu clad products



40-year life expectancy

for timber products



CE-Mark for windows and doors

The CE marking of NorDan windows and doors has been introduced in EU countries. All manufacturers must label their products with the CE mark to show that documentation of the windows and doors are manufactured and tested in accordance with European standards.



PEFC

NorDan AS holds the internationally renowned PEFC certificate (the Programme for the Endorsement of Forest Certification). This means that NorDan is documented along the entire chain from tree stump to the consumer and that raw materials are sourced from well managed forests.

www.pefcnorge.org



Secured by design

Products with this symbol are tested and approved according to strict safety and quality standards from the Association of Chief Police Officers in the UK (ACPO). Products with this label are resistant to burglary and help reduce crime. Featured NorDan products that hold SBD certification can be found on the secured by design website.

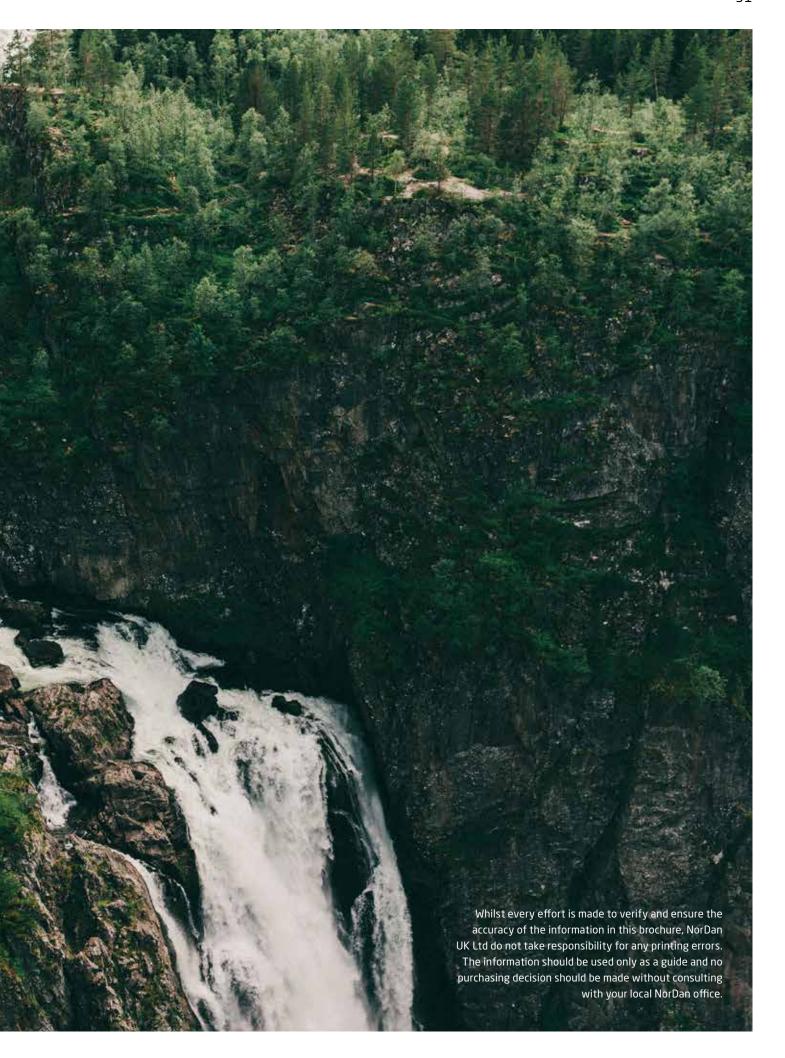
www.securedbydesign.com



BBA

British Board of Agrement - The British Board of Agrement (BBA) is the UK's major authority offering approval of construction products, systems and installers. NorDan has a number of products tested to the most rigorous of standards.







At NorDan we are happy to be the forerunners in the transition to a sustainable construction industry. We try to lead by example - we've done it for nearly 100 years. Founded in 1926, and still family owned, NorDan is one of Europe's leading manufacturers of high-performance timber windows and doors. NorDan windows and doors offer solutions that combine leading energy performance with longevity, to minimise environmental impact throughout their lifespan.

LIVINGSTON **Head Office**

3 Almondview Office Park Livingston West Lothian EH546SF

www.nordan.co.uk

ABERDEEN

Norse House Greenwell Road East Tullos Aberdeen AB123AX

MANCHESTER

Ivy Business Centre The Building Centre Crown Street Failsworth M35 9BG

EXETER

(NorDan Scandic Ltd) 1b/5a Newton Centre Thorverton Road Exeter EX28GN

LONDON

26 Store Street Bloomsbury WC1E 7BT

INVERNESS

NorDan UK Ltd Brackley House Gollanfield Inverness IV2 7QT

GLOUCESTER

Suite C, The Opus Telford Way Waterwells Business Park Gloucester GL2 2AB

