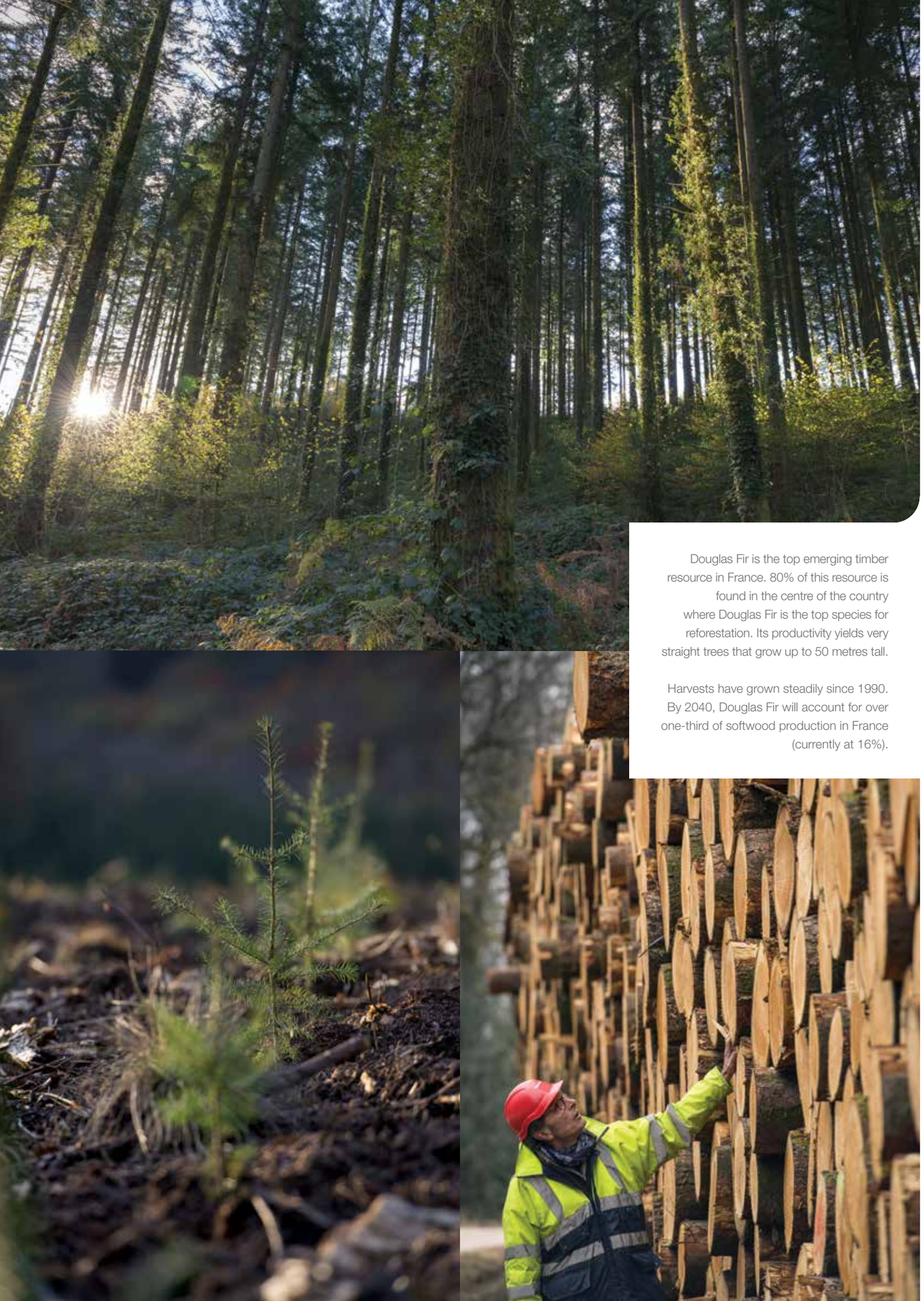
DOUGLAS FIR

THE RIGHT TIMBER FOR YOUR PROJECTS

An Accessible Resource

A Building Material

A Source of Inspiration



Douglas Fir is the top emerging timber resource in France. 80% of this resource is found in the centre of the country where Douglas Fir is the top species for reforestation. Its productivity yields very straight trees that grow up to 50 metres tall.

Harvests have grown steadily since 1990. By 2040, Douglas Fir will account for over one-third of softwood production in France (currently at 16%).

France is the **3rd** largest producer of softwood in Europe and **the number 1** producer of Douglas Fir with **60%** of the resource located in the country.

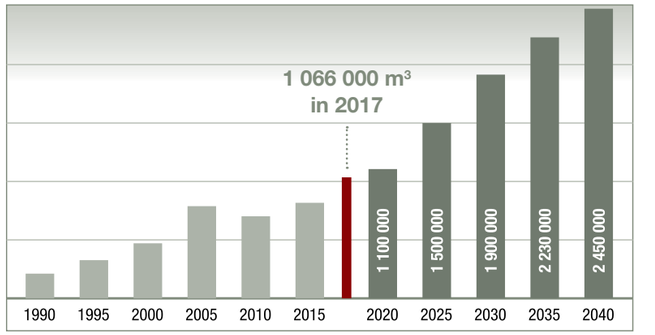
○ Main Commercial Ports

An Accessible Resource

Native to North America, Douglas Fir was primarily planted in France in the 70s and 80s. It is now the top emerging timber resource in the country with:

- **420,000 hectares** of forest
- **130 million m³** of standing timber (6 million m³ added each year)
- **Over 1 million m³ of sawn timber** produced in 2017: 16% of softwood production in France
- **2.5 million m³ of sawn timber** predicted for 2040 (see bar chart): Douglas Fir will account for a third of French sawn timber production

20-year projection for sawn timber production (in m³)



Source: 2018 Resource Study (FCBA-France Douglas)

France is investing in the sustainable management of this resource, most notably through PEFC certification (Programme for the Endorsement of Forest Certification).
Over 3,000 businesses and 6 million hectares of forests in mainland France have been certified, guaranteeing that these forests will be replanted.

A Building Material

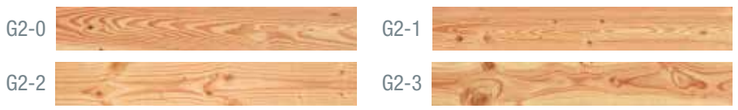
The ultimate building material, Douglas Fir combines remarkable mechanical properties with excellent natural durability. These features, already well-known to other parts of the world that have been using it for many years, have now been demonstrated in France through a series of scientific studies and a trial period of nearly 30 years.

Douglas Fir suppliers present their shared product range in the catalogue:
Douglas Fir, A Natural Choice for Construction.

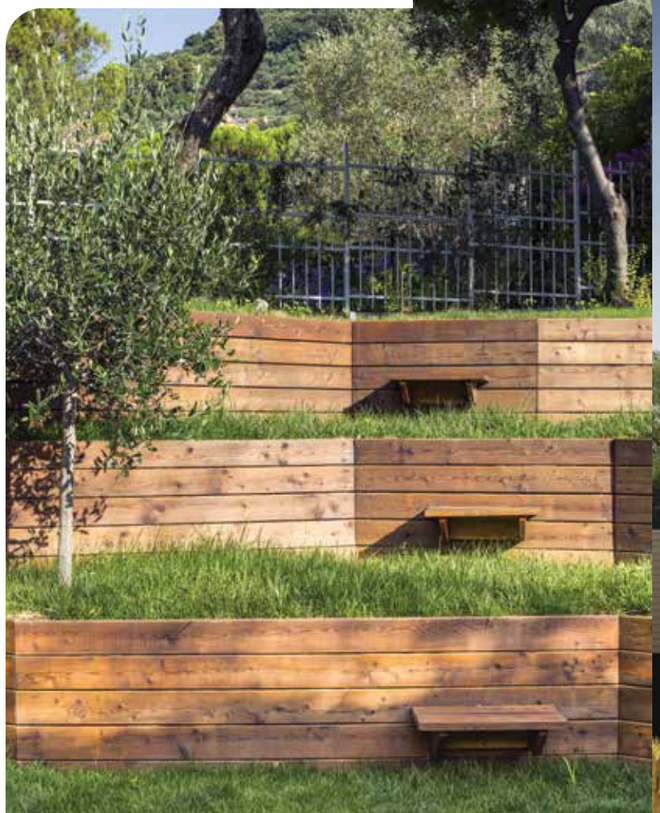
Available for download (in English and French) at **france-douglas.com** in the «media» section.

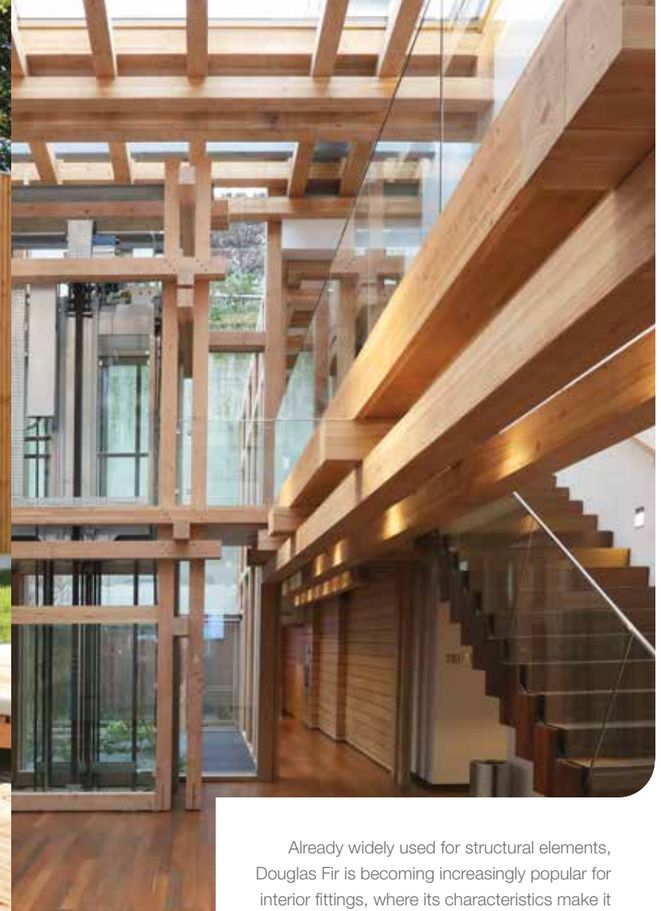
Description	• Reference colour: pinkish-brown • Sapwood and duramen are clearly distinct • Straight grain, medium texture, no countergrain • Tight knots of varying sizes
Physical and mechanical properties	• Density at 12%: 540 kg/m^3 • Total volumetric shrinkage: 13.2% • Breaking stress under axial compression: 55 MPa • Breaking modulus under bending: 85 MPa • Elasticity modulus: 12,100 MPa • Brinell hardness perpendicular to the fibres 18 N/mm2 • Monnin hardness: 2.2 to 3.2 N/mm
Durability	• Duramen naturally durable up to Use Class 3.2 • Duramen: not impregnatable • Sapwood: can be pressure treated in autoclave up to Use Class 3.2
Machinability	• Relatively quick and easy to dry • Douglas Fir can be machined normally • It can also be bonded, nailed and stained

Visual grading of Douglas Fir according to NF EN 1611-1
(complete version available in the product catalogue)

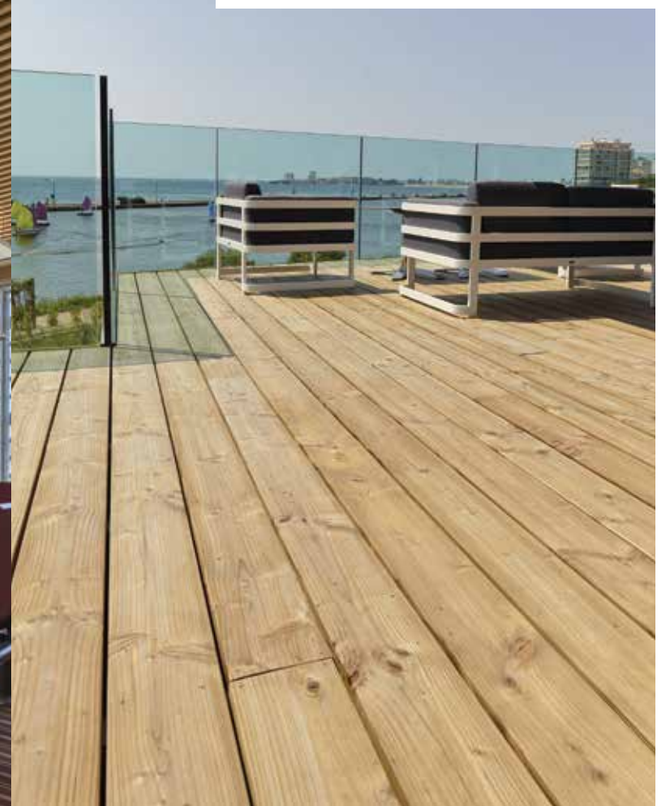


Douglas Fir is establishing itself as a sought-after construction material.
Its technical properties and benefits make it the ideal solution for future challenges in all types of structures.



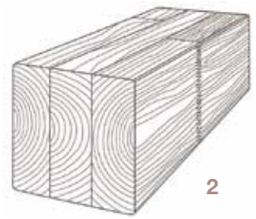


Already widely used for structural elements, Douglas Fir is becoming increasingly popular for interior fittings, where its characteristics make it a good choice for many applications. For exteriors, it can also be used for just about any architectural style.



1
Examples of typical recommended cladding profiles

A Source of Inspiration



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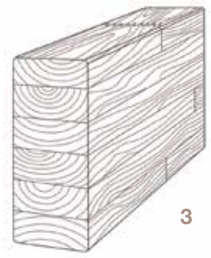

3

4

Optimised products, varied uses

Thanks to industry developments and advances in timber technology, Douglas Fir products can now be used for every application and every specification. Companies in the industry have ramped up production of standardised building components that meet high technical and environmental standards and comply with technical and regulatory frameworks. Advances in preservation and finishing mean that the possibilities for this material are endless.

Easy to work with, boasting a high level of dimensional stability and available in extra-long boards and large cross sections, Douglas Fir is the right choice for a wide range of uses. Warm, innovative and durable, it is also highly adaptable: use it as solid timber or as laminated or reconstituted wood, alone or in combination with other materials, for a multitude of applications.

COMMON USES

- **Structures (all types)**
- **Building shells**
- **Interior coverings**
- **Fittings**
- **Joinery**
- **Landscaping**
- **Works of art**

Find a complete list of Douglas Fir suppliers and their products at **france-douglas.com/nos-entreprises-referencees/**

More technical and engineering products are being added to the Douglas Fir range every day. Its style and durability make it a popular cladding material (see diagram 1).

Prized for structural applications, Douglas fir is used for ambitious building projects, including tall structures with the development of laminated timber (diagrams 2 and 3) and cross laminated timber panels (diagram 4).

France Douglas
contact@france-douglas.com

French businesses offer a high-quality, technical and competitive line of Douglas Fir products for you.
Find them at: **france-douglas.com**

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Document created with support from:

France Douglas's work is co-financed by the European Union. Europe is invested in the Massif Central through the European regional development fund.