

# Wind fact sheet – France

## Rolling shutters

### Alucolor® | Rolpac® III

| Product      | Guide      | Limit values of permissible wind resistance class <sup>1</sup> |      |      |      |      |      |      |      |      |
|--------------|------------|--|------|------|------|------|------|------|------|------|
|              |            | 1000   | 1500 | 2000 | 2500 | 3000 | 3500 | 4000 | 4500 | 5000 |
|              | Width (mm) |  |      |      |      |      |      |      |      |      |
| Rollpac® III |            | 6  | 6    | 4    | 3    | 2    | -    | -    | -    | -    |
| Alucolor® 25 | 20x30      | 6  | 6    | 4    | 3    | 2    | 1    | 0    | 0    | 0    |
|              | 20x45      | 6  | 6    | 4    | 3    | 2    | 1    | 1    | 1    | 0    |
| Alucolor® 41 | 20x30      | 6  | 6    | 4    | 4    | 3    | 1    | 0    | -    | -    |
|              | 20x45      | 6  | 6    | 4    | 4    | 3    | 2    | 1    | -    | -    |

<sup>1</sup> Tests in accordance with product standard EN 13659. Product limit dimensions in accordance with data sheet.

#### The values in the table apply with the following reservations:

- Product dimensions and use comply with the Griesser technical data sheet.
- Installation, fastening and operation are carried out in accordance with installation and operating instructions.
- The products should be installed in the soffit / directly on the facade, with the curtain <100mm away from the facade.
- If the distance from the facade is between 100 and 300 mm, the value in the table must be reduced by 1 class.
- If the distance from the facade is between 300 and 500 mm, the value in the table must be reduced by 2 classes. Furthermore, the table cannot be applied.



#### Instructions for automatic solar shading

The rolling shutters cannot be protected with wind sensors against sudden gusts of wind. Make sure that the rolling shutter remain retracted if a storm is imminent. Updrafts or fallwinds at facades could lead to the destruction of the rolling shutters. Wind sensors cannot detect these as a rule.

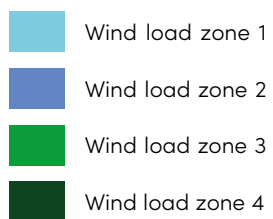
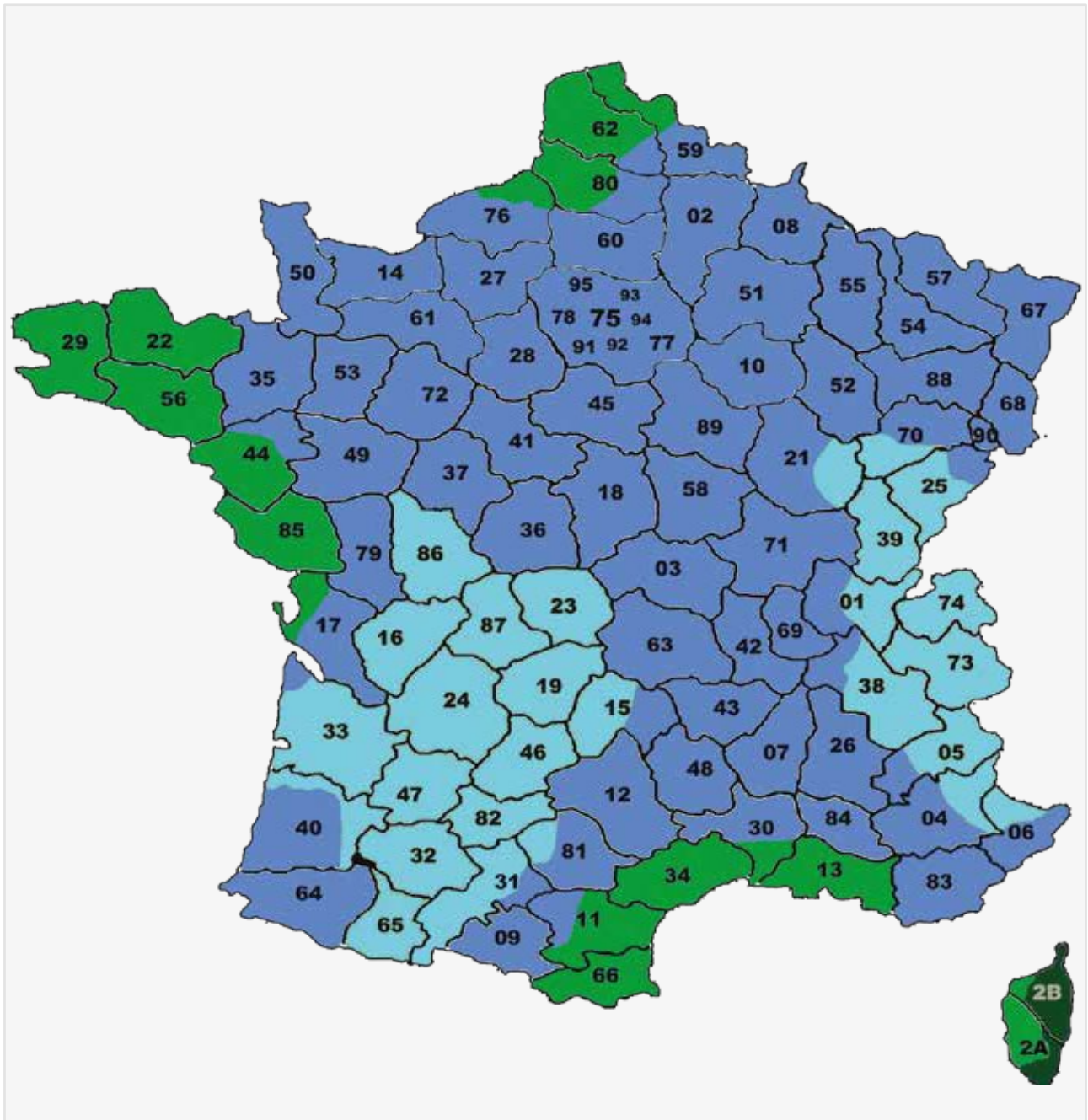
#### Wind resistance classes in accordance with SIA 342:2009

| Class 0    | Class 1   | Class 2   | Class 3  | Class 4  | Class 5  | Class 6  |
|------------|-----------|-----------|----------|----------|----------|----------|
| <9 m/s     | 9 m/s     | 10.7 m/s  | 12.8 m/s | 16.7 m/s | 21.0 m/s | 25.6 m/s |
| <32.5 km/h | 32.5 km/h | 38.5 km/h | 46 km/h  | 60 km/h  | 76 km/h  | 92 km/h  |

Setting value for wind sensors if they are fitted with the product.

## Planning Notes

### Wind load zones (DTU 34.4 P3)



## Wind speed limit values [km/h] depending on the terrain category and the installation height (DTU 34.4 P3)

| Wind load zone | Terrain category* | Installation height [m] |     |     |     |      | Wind load zone | Terrain category* | Installation height [m] |     |     |     |      |
|----------------|-------------------|-------------------------|-----|-----|-----|------|----------------|-------------------|-------------------------|-----|-----|-----|------|
|                |                   | ≤9                      | ≤18 | ≤28 | ≤50 | ≤100 |                |                   | ≤9                      | ≤18 | ≤28 | ≤50 | ≤100 |
| 1              | 0                 | 45                      | 49  | 51  | 53  | 56   | Guadeloupe     | 0                 | 74                      | 79  | 83  | 87  | 92   |
|                | II                | 41                      | 44  | 47  | 50  | 54   |                | II                | 67                      | 73  | 77  | 82  | 88   |
|                | IIIa              | 36                      | 40  | 43  | 46  | 51   |                | IIIa              | 59                      | 66  | 70  | 76  | 83   |
|                | IIIb              | 31                      | 36  | 39  | 43  | 47   |                | IIIb              | 51                      | 59  | 64  | 70  | 78   |
|                | IV                | 31                      | 32  | 35  | 39  | 44   |                | IV                | 50                      | 52  | 57  | 64  | 72   |
| 2              | 0                 | 50                      | 53  | 55  | 58  | 61   | French Guiana  | 0                 | 35                      | 38  | 39  | 41  | 44   |
|                | II                | 44                      | 49  | 51  | 55  | 59   |                | II                | 31                      | 34  | 36  | 39  | 42   |
|                | IIIa              | 39                      | 44  | 47  | 51  | 55   |                | IIIa              | 28                      | 31  | 33  | 36  | 39   |
|                | IIIb              | 34                      | 39  | 43  | 47  | 52   |                | IIIb              | 24                      | 28  | 30  | 33  | 37   |
|                | IV                | 33                      | 35  | 38  | 43  | 48   |                | IV                | 24                      | 25  | 27  | 30  | 34   |
| 3              | 0                 | 58                      | 62  | 64  | 68  | 72   | Martinique     | 0                 | 66                      | 71  | 74  | 77  | 82   |
|                | II                | 48                      | 53  | 55  | 59  | 64   |                | II                | 59                      | 65  | 68  | 73  | 78   |
|                | IIIa              | 42                      | 48  | 51  | 55  | 60   |                | IIIa              | 52                      | 58  | 62  | 68  | 74   |
|                | IIIb              | 37                      | 43  | 46  | 51  | 56   |                | IIIb              | 46                      | 52  | 57  | 62  | 69   |
|                | IV                | 36                      | 38  | 41  | 46  | 52   |                | IV                | 44                      | 47  | 51  | 57  | 64   |
| 4              | 0                 | 58                      | 62  | 64  | 68  | 72   | Mayotte        | 0                 | 62                      | 66  | 69  | 73  | 77   |
|                | II                | 52                      | 57  | 60  | 64  | 69   |                | II                | 55                      | 61  | 64  | 68  | 73   |
|                | IIIa              | 46                      | 51  | 55  | 59  | 64   |                | IIIa              | 49                      | 55  | 59  | 63  | 69   |
|                | IIIb              | 40                      | 46  | 50  | 55  | 60   |                | IIIb              | 43                      | 49  | 53  | 59  | 65   |
|                | IV                | 39                      | 41  | 45  | 50  | 56   |                | IV                | 42                      | 44  | 48  | 53  | 60   |
|                |                   |                         |     |     |     |      | Réunion        | 0                 | 70                      | 75  | 78  | 82  | 87   |
|                |                   |                         |     |     |     |      |                | II                | 63                      | 69  | 73  | 77  | 83   |
|                |                   |                         |     |     |     |      |                | IIIa              | 55                      | 62  | 66  | 72  | 78   |
|                |                   |                         |     |     |     |      |                | IIIb              | 48                      | 56  | 60  | 66  | 73   |
|                |                   |                         |     |     |     |      |                | IV                | 47                      | 49  | 54  | 61  | 68   |

\* Terrain categories

0 Sea or coastal area exposed to onshore winds, lakes and water bodies exposed to winds across a distance of at least 5 km.

II Plain countryside with or without isolated obstacles (trees, buildings, etc.) which are separated from each other by more than 40 times their height.

IIIa Countryside with hedgerows, vineyards, hedges, dispersed housing.

IIIb Urbanized or industrial zones, dense hedges, groves.

IV Urban zones with at least 15% of the surface covered with buildings with an average height of more than 15 m, forests.

### Note

This clause is based on common types of buildings and can only provide general recommendations. The contractors must verify that, on the one hand, local climate conditions (in cases of construction in the mountains, above different levels of altitude, etc.) and, on the other hand, the shape of the building (in cases of non-planar facades, significant recesses, etc.) and its location in relation to other buildings (in particular in the case of heights greater than 50 m), do not necessitate the use of performance closures other than those indicated below across the entire facade or on parts of the facade.

Facade awnings are not designed to withstand strong winds. The wind speeds indicated in the table above allow for a service rate of approximately 90% to be reached. If the project manager wishes to increase this service rate, a product from a higher category must be chosen.

### Important!

The decision-maker must choose a product with a permissible wind speed (see p. 1) equal to or higher than the wind speed indicated in the table above and that has been adjusted to any potential characteristics of the installation site. This document is a reference sheet; please refer to DTU 34.4 for detailed instructions on the rules of application.