

## G-Form + Flat G-Form Technical Data (1):

#### General:

Gentas G-Form laminates can be produced in 2 types:

- 1) Formed compact laminate according to the customer need ( See attached technical information ) Done in Mengen Bolu.
- 2) Flat G Form Laminate ready to be formed (See attached forming instructions).

Gentas G-Form laminates are produced according to EN 438 with a special core structure that enable the Unique characteristics

Of the formed and flat laminates together with the benefits of a compact laminate.

#### Thickness available:

3,4,6,8,10,12 mm

#### Size of formed laminates ( G - Form Laminate ):

Max.  $1400 \times 2800 \text{ mm}$  or according to customer specification ( See Attached specification form ) Any other size upon request

#### Size of ready to be formed laminates (Flat G - Form laminate):

Max. 1400 x 3000 mm or according to customer specification ( See Attached specification form ) Any other size upon request

#### **Decors**:

All decors types (printed and plain color) from Gentas collection Always identical on both sides

#### Core:

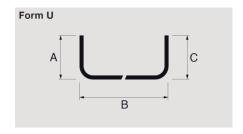
Black , Brown
Colored Stripes – Upon request .

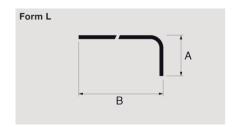
#### **Surface Finish:**

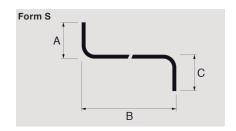
Vellur, Veneer, Quartz, Grain, Ceramic, Quartz, Wood 1, Italian Stone, Oluklu.

# G-Form + Flat G-Form Technical data (1):

#### **Forming Shape:**







#### Banding Radius (Inner in mm):

3, 4, 6 mm: Minimum R15 8, 10, 12 mm: Minimum R20



## G-Form + Flat G-Form Technical Data (2):

#### **Specification Form:**

The following specification form has to be send to Gentas A.S. for Confirmation:

| Number<br>Of<br>Laminates | Decor | Surface<br>Finish | Thickness<br>( mm ) | Interior<br>Banding<br>Radius<br>( mm ) | Form<br>Shape<br>Type | Part | Α | В | С | Remarks |
|---------------------------|-------|-------------------|---------------------|---|-----------------------|------|---|---|---|---------|
|                           |       |                   |                     |   |                       |      |   |   |   |         |
|                           |       |                   |                     |   |                       |      |   |   |   |         |
|                           |       |                   |                     |   |                       |      |   |   |   |         |
|                           |       |                   |                     |   |                       |      |   |   |   |         |

#### **Forming Instructions:**

The following forming instructions refer to Flat G – Form laminate That can be molded according to the customer need.

All the characteristics of the formed laminate will meet the results as mentioned below . In order to form Gentas Flat G - Form the following equipment should be available :

#### **Heating low pressure press:**

Pressure 5 – 15 Kg/cm<sup>2</sup> Pressure on the laminate surface

Heating capability: 155 - 160°c on the surface of the press opening.

Protective Layer: See below recommendations.

#### **Protective Layer:**

Heat resistant protective layer for the press and the mold with temp. resistance up to 180°c (Usually Regular Kraft paper 180 gsm or any other protective film). The protective layer will function as a cushion In order to protect the decorative surface against any surface damage that can be caused by the press or The mold Pressing / Molding surface.

#### **Transportation Device:**

Transportation system for moving the pressed laminates (the pressed laminates are in temp. 170 - 180°c after pressing)

From the press to the molding press.

#### **Molding Press:**

The molding press should fit the size, shape and thickness of the finished formed laminate. The quality of the molding press is crucial for the quality of the formed laminate. Any misuse in the press mold will lead To low

quality finished laminate ( Cracked , Broken , Surface Contamination , un uniformity in the surface finish ). Gentas A.S. recommend to consult a professional mold press company for the specific requirement of the mold press.

Mold press pressure: 15 – 20 Kg/cm2. Cooling / Heating system: No need.

Protective Cushion on Mold Press opening: See above recommendations.

#### Temperature measurement device :

Temperature Gun / Thermocouple .

#### **Safety Device:**

According to the local regulation (Goggles / gloves / Fire Protection etc.).



## G-Form + Flat G-Form Teknik Data Bilgileri : (3)

#### **Forming Production stages:**

1) Laminate acclimation: Climate the laminate for 24 Hour before Pressing and Molding in environment controlled area in the Following conditions: Temp. =  $20 - 30^{\circ}c$ ; %RH = 50 - 60%.

#### 2) Press Preparation:

2.1 Heat the press to the needed temp. (155 - 160°c on the surface of the press opening) and check that the Temperature is

Constant in all the press area.

- 2.2 Check that the pressure in all press area is equal (15 20 Kg/cm2).
- 2.3 Propriety of the protective layer (Clean, no wrinkles).

#### 3) Molding Press Preparation:

- 3.1 Check that the pressure in all molding press area is equal (15 20 Kg/cm2).
- 3.2 Propriety of the protective layer (Clean, no wrinkles).
- 3.3 Ensure that the temp. of the press mold is 25 30°c (in case the mold opening is too cold it will Affect the bending).

| In case the Moid Press is too cold - heat it  | with pressed Protective Layer.                            |
|---|---|
| 4) Pressing the Flat Laminate:  |   |
| 4.1 Insert the laminate into the press according  | ng to the following combination :                         |
| P   | Press Opening   |
| P   | rotective Layer   |
| F   | lat G – Form Laminate                                     |
| P   | rotective Layer   |
| P   | ress Opening  |
| <ul><li>4.2 Close the press and heat under pressure at For every 1 mm of laminate heat under pressure at For example : for Laminate in nominal thick</li><li>380 sec.</li></ul> |   |
| 4.3 After pressing move the laminate into the m   | nolding press as soon as possible ( in 30 – 50 seconds ). |
|   | Molding Press Opening                                     |
|   | Protective Layer  |
|   | Flat G – Form Laminate                                    |
|   |   |

**Protective Layer** 

Molding Press

# G-Form + Flat G-Form Technical Data (3):

4.4 Close the molding press and maintain under pressure according to the thickness.

For every 1 mm of laminate maintain the pressure for 1.2 minutes.

For example: For Laminate in nominal thickness of 9.5 mm maintain the pressure for 11.4 Minutes.

4.5 After Molding Take the laminate out of the press and ensure cooling for 24 Hours in controlled area in the following.

Conditions: Temp. =  $20 - 30^{\circ}$ c; %RH = 50 - 60%, before further processing.

- 4.6 After 24 hours process the laminate according to the need ( Edges Cutting , Trimming etc. ).
- 5) Safety: All Safety precautions should be taken in order to avoid any injury.

#### 6) Recommendations:

6.1 All the above instruction should be tested before serial production in order to specify the conditions in order to achieve the

Needed laminate quality.

- 6.2 Other molding process can be used (roller press) upon the producer responsibility.
- 6.3 For any technical assistance please ask your sales person.



# G-Form + Flat G-Form Technical Data (4):

| Characteristics        | Test Method  | Test Results  |  |  |  |
|------------------------|--|---|--|--|--|
| Density                | ISO 1183 - 1   | 1.4 ± 0.5 gr/cm <sup>3</sup>  |  |  |  |
| Wear Resistance        | EN 438-2 section 10<br>CGS                                       | Initial Point ≥ 150 Rev.<br>Wear Value ≥ 350 Rev.   |  |  |  |
| Scratch Resistance     | EN 438-2 section 25<br>CGS                                       | Min. 3 N  |  |  |  |
| Thickness              | EN 438-2 section 5   | $3.0 \le t \le 4.0 \text{ mm} : \pm 0.50 \text{ mm}$ $6.0 \le t \le 7.9 \text{ mm} : \pm 0.6 \text{ mm}$ $t \ge 8.0 \text{ mm} : \text{According To Agreement customer / producer}$ |  |  |  |
| Impact Resistance      | EN 438-2  Big Ball section 21  CGS  3.0 ≤ t ≤ 5.9 mm  t ≥ 6.0 mm | 1400 mm height : no crack , 50 mm Max.<br>1800 mm height : no crack , 50 mm Max.  |  |  |  |
| Resistance to Staining | EN 438-2 section 26<br>CGS<br>Group 1+2<br>Group 3               | Min. level 5<br>Min. level 4  |  |  |  |

# G-Form + Flat G-Form Technical Data (4):

| Characteristics  | Test Method   | Test Results  |  |  |  |
|------------------|---|---|--|--|--|
| Tensile Strength | EN ISO 527 - 2<br>CGS   | Min. 60 MPa   |  |  |  |
| Bending Strength | EN ISO 178<br>CGS   | Min. 80 MPa   |  |  |  |
| Rigidity         |   | Up to 80°c in constant temperature  |  |  |  |
| Flatness         | EN 438-2 bölüm 9<br>CGS<br>S Type Shape<br>L Type Shape<br>U Type Shape | Max. 2.2 mm / Running Meter  Max. 1.2 mm / Running Meter  Max. 2.2 mm / Running Meter |  |  |  |