Description
HexFlow® RTM6-2 resin is the bi-component version of HexFlow® RTM6 resin. Delivered as two different components, HexFlow® RTM6-2 resin provides several benefits over HexFlow® RTM6: air shipment is allowed, storage at 23±3°C for 12 months, and bigger packages are possible (up to 378 kg).

HexFlow® RTM6-2 resin is chemically the same as RTM6 resin and has the same high performance after mixing Part A and Part B. Their mixing ratio in weight is Part A : Part B (100 : 68.1).

After mixing Part A and Part B, service temperatures from -60°C up to 120°C and cycle processing flexibility make HexFlow® RTM6 resin ideal for primary & secondary aerospace structures. Due to the low viscosity of HexFlow® RTM6 resin, there are long injection windows to facilitate large-parts manufacturing.

Mixed HexFlow® RTM6-2 resin can be used with a wide range of HexForce®, HiTape® and HiMax™ reinforcements. If needed, binders are also available and fully compatible with HexFlow® RTM6-2 resin. They provide dimensional stability to the reinforcement and ease preforming processes.

Mixed HexFlow® RTM6-2 resin, when combined with HiTape® & HiMax™ reinforcements, has comparable mechanical properties to the latest generation prepregs.

Advantages
- Before mixing:
  - Longer out life storage of Part A & Part B: 12 months at room temperature (23 ± 3°C)
  - Easier transportation regulations: aircraft shipment is allowed

- After mixing:
  - Please refer to “Hexcel HexFlow® RTM6 Technical Data Sheet”

* Dry: 23±5°C / 50 ± 7% RH
* Wet: 14 days in water at 70°C
Uncured Resin Properties
For uncured resin properties after mixing, please refer to “Hexcel HexFlow® RTM6 Technical Data Sheet”.

**Viscosity**

**Part A**

![Rheology profile of HexFlow® RTM6-2 Part A](image1)

*Figure 1: Rheology profile of HexFlow® RTM6-2 Part A*

![Isothermal viscosities of HexFlow® RTM6-2 Part A](image2)

*Figure 2: Isothermal viscosities of HexFlow® RTM6-2 Part A*
Figure 3: Rheology profile of HexFlow® RTM6-2 Part B (Part B is solid at temperatures <80°C)

Figure 4: Isothermal viscosities of HexFlow® RTM6-2 Part B
HexFlow® RTM6-2
180°C Bi-component epoxy system for Resin Transfer Moulding and Infusion technologies

**Part A**

<table>
<thead>
<tr>
<th>Standard DSC parameters</th>
<th>Tg midpoint (°C)</th>
<th>Enthalpy (J/g)</th>
<th>T peak (°C)</th>
<th>T onset (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>-20</td>
<td>1120</td>
<td>330</td>
<td>310</td>
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</tbody>
</table>

**Figure 5:** Standard DSC HexFlow® RTM6-2 Part A

**Figure 6:** Specific heat of HexFlow® RTM6-2 Part A
**Part B**

<table>
<thead>
<tr>
<th>Standard DSC parameters</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enthalpy (J/g)</strong></td>
<td>70</td>
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<tr>
<td><strong>T peak 1 (°C)</strong></td>
<td>55</td>
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<tr>
<td><strong>T peak 2 (°C)</strong></td>
<td>75</td>
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<tr>
<td><strong>Softening Tg (°C)</strong></td>
<td>40</td>
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<tr>
<td><strong>Melting start T (°C)</strong></td>
<td>50</td>
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<tr>
<td><strong>Melting end T (°C)</strong></td>
<td>80</td>
</tr>
</tbody>
</table>

**Figure 7**: Standard DSC HexFlow® RTM6-2 Part B

**Figure 8**: Specific heat of HexFlow® RTM6-2 Part B
HexFlow® RTM6-2
180°C Bi-component epoxy system for Resin Transfer Moulding and Infusion technologies

Processing Recommendations
Mixing ratio by weight: Part A : Part B (100 : 68.1)
For uncured resin handling, please refer to “Hexcel HexFlow® RTM6 & RTM6-2 Safety Processing Guidelines” document.
For process parameters after mixing, please refer to “Hexcel HexFlow® RTM6 Technical Data Sheet”.
For additional technical information on processing & curing, please contact Hexcel Technical Support.

Cured Resin Mechanical Properties
For cured resin mechanical properties after mixing, please refer to “Hexcel HexFlow® RTM6 Technical Data Sheet”.

Laminate Mechanical Properties
For cured laminate mechanical properties after mixing, please refer to “Hexcel HexFlow® RTM6 Technical Data Sheet”.

Testing Conditions
Uncured resin data for Part A & Part B

Isothermal viscosities: EN6043
Gap: 0.5mm
Shear rate: 10 rad/s
Strain: 4%
Rheology profile: EN6043
Gap: 0.5mm
Shear rate: 10 rad/s
Strain: 4%
Temperature range: from 30°C to 250°C

Standard DSC: EN6041
Heating rate: 10°C/min
Temperature range: from -60°C to 350°C

Modulated DSC:
2 heating cycles: from -10°C to 110°C then from -50°C to 280°C at 2°C/min, Cp measured on second heating rate
Oscillation: +/-1°C
Period: 120s

Transport And Storage Of Uncured Resin
For product classification & transport conditions, please refer to HexFlow® RTM6-2 Safety Data Sheet.

Shelf life before mixing (Part A & Part B):
• 12 months at room temperature (23 ± 3°C)

Shelf life after mixing:
• Please refer to “Hexcel HexFlow® RTM6 Technical Data Sheet”

For more information
Hexcel is a leading worldwide supplier of composite materials to aerospace and industrial markets.
Our comprehensive range includes:
● HexTow® carbon fibers
● HexForce® reinforcements
● HiMax™ multiaxial reinforcements
● HexPly® prepregs
● HexAM™ additive manufacturing
● HexMC® molding compounds
● HexFlow® RTM resins
● Redux® adhesives
● HexTool® tooling materials
● HexWeb® honeycombs
● Acousti-Cap® sound attenuating honeycomb
● Engineered core
● Engineered products
● Polyspeed™ laminates

For US quotes, orders and product information call toll-free 1-800-688-7734. For other worldwide sales office telephone numbers and a full address list, please go to:

http://www.hexcel.com/contact/salesoffice

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