Product lines for Hydrogen Cylinder Manufacturing
DYHARD® Fluid system for hydrogen cylinder in FCEV

- **POWER CONTROL UNIT**
- **MOTOR**
- **FUEL CELL**
- **BATTERY**
- **H₂ TANK**

Diagram showing the flow of hydrogen (H₂) and oxygen (O₂) through the system, ending with the production of water (H₂O).
Benefits:
- Extreme long pot life
- Continuous winding operation
- Increased productivity, higher profitability
- Consistent viscosity in summer and winter
- Reduction of cleaning time and resin waste
- Excellent mechanical properties
- Low enthalpy

**DYHARD® Fluid system based on:**

**DYHARD® RF2100:** Low viscous modified BPA epoxy resin

**DYHARD® Fluid 212:** Latent liquid curing agent

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**Properties:**
- Hydrostatic burst pressure
  - H2-cylinder: 1727 bar = 2.46 NWP*
  - CNG-cylinder: 590 bar = 2.95 NWP*
- Pressure cycle test: Passed; >60,000 cycles
- High-pressure creep test: Passed; 246 hrs. in water at 100°C

(*NWP= Nominal Working Pressure*)
<table>
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<tr>
<th>PRODUCT LINE</th>
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<th>WET FIBER WINDING</th>
<th>TOWPREG</th>
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<tr>
<td>DYHARD® SYS-LINE</td>
<td>DYHARD® RF2100</td>
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<td>DYHARD® FLUID 212</td>
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