Technical bulletin – Blow-out resistance in accordance with VDI 2200 (06-2007)

Product: GORE® GR sheet gasketing
Test dates: February 2006
Test institute: Fachhochschule Münster
Test procedures: Blow-out test series according to VDI 2200 (06-2007)

TEST OVERVIEW:
The blow-out test according to VDI 2200 (06-2007) involves a DN40 flange of the required material and at the required pressure level being equipped with a seal and heated to the required exposure temperature.

There are two different test steps:
Test Step 1 and Test Step 2.

In Test Step 1, the cooled flange, having been exposed to the set residual gasket stress, has an internal pressure applied to it in increments of 5 bar. Test Step 1 is attained if 1.5 times the nominal pressure is reached without a defined pressure drop being observed.

Test Step 2 can only be attempted if Test Step 1 has been attained. In this case, the residual gasket stress is reduced further to a \( Q_{\text{res}} \) value to be specified by the manufacturer (in this case: 5 MPa). The test procedure is the same as for Test Step 1. Test Step 2 cannot be performed if the residual gasket stress is below \( Q_{\text{res}} \) after exposure to temperature.

Test results:

<table>
<thead>
<tr>
<th>Material</th>
<th>Thickness [mm]</th>
<th>Flange type</th>
<th>Exposure temp. [°C]</th>
<th>Initial gasket stress [MPa]</th>
</tr>
</thead>
<tbody>
<tr>
<td>GORE® GR</td>
<td>3.2</td>
<td>DN40/ PN40</td>
<td>230</td>
<td>30</td>
</tr>
</tbody>
</table>

Test Step 1: 60 bar
Test Step 2: 60 bar

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