Impact test report
Quick-Guard® Standard - Door

Date: 2016-03-08
Place: Kungsbacka, Sweden
Testing Company: ABB Jokab Safety

Report No: QG-TR-96
Test method: Test method stated in EN ISO 14120:2015 Annex C

Test object data

<table>
<thead>
<tr>
<th>Test object</th>
<th>Infill material / panel</th>
<th>Panel fixation</th>
<th>Post profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick-Guard</td>
<td>JSM YN40W9</td>
<td>JSM NL3</td>
<td>JSM A44A</td>
</tr>
<tr>
<td>Standard, Door</td>
<td>Welded steel mesh 40/3,5</td>
<td>Net lock</td>
<td>Aluminum profile 44x44</td>
</tr>
<tr>
<td>Test object height</td>
<td>2000 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test object width</td>
<td>1056 mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other: Manufacturer
ABB Jokab Safety

Test equipment and conditions

<table>
<thead>
<tr>
<th>Test method</th>
<th>Impact body</th>
<th>Impact side</th>
<th>Height of impact point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pendulum test</td>
<td>Hard body</td>
<td>Inside hazard zone</td>
<td>1340 mm</td>
</tr>
<tr>
<td>Body mass</td>
<td>34 kg</td>
<td>Calculated impact energy [J]</td>
<td>200 J</td>
</tr>
<tr>
<td>Drop height</td>
<td>600 mm</td>
<td>Floor fixation</td>
<td>M10x68 expander shell bolts</td>
</tr>
</tbody>
</table>

Other
Pendulum speed: 12.4 km/h (3.4 m/s)

\[
E = mgh = 34 \times 9.82 \times 0.6 = 200 \text{ J}
\]

or

\[
E = \frac{mv^2}{2} = \frac{34 \times 3.4^2}{2} = 196 \text{ J}
\]

Where:
E is the calculated impact energy in Joule [J]
m is the pendulum mass [kg]
g is 9.82 m/s² (constant)
h is the drop height in meters [m]
v is the pendulum speed [m/s]

Test result

Result:
The fence/door absorb and resist the energy impact caused by the pendulum body, and obtain a remaining deformation. Total deflection of the fence was approximately 115 mm, no penetration or parts departed.