

Technical bulletin – EN 13555 tests: Q_{Smax} (Maximum permissible gasket stress)

Product:	GORE [®] GR sheet gasketing	
Test dates:	January – February 2006	
Test institute:	Fachhochschule Münster	
Test procedures:	Mechanical characteristics test according to EN 13555	

TEST OVERVIEW:

Q_{Smax} is the maximum gasket stress during installation and in operation that may be applied to the seal without damage occurring. It depends on the temperature and the seal thickness.

During the test the gasket stress is increased cyclically and then reduced to 1/3 of the previous gasket stress; the seal thickness is then measured. The test is repeated at various temperatures. A sudden drop in seal thickness indicates failure. If no failure occurs, the maximum possible gasket stress of the flanged joint is specified in terms of Q_{Smax} (in this case: 225 MPa).

In addition, the $Q_{\mbox{\tiny Smax}}$ values must be backed up by creep relaxation tests (Por tests).



TEST RESULTS:

Material	Thickness [mm]	Temperature [°C]	Q _{smax} [MPa]
GORE® GR	1.6	20	>225
GORE® GR	1.6	230	120
GORE® GR	3.2	20	>225
GORE [®] GR	3.2	230	120
GORE® GR	6.4	20	200
GORE [®] GR	6.4	230	60

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