

Test method (corrosion protection for steel)

Standard-test according to the German TL 8135-0002 (Appendix A):

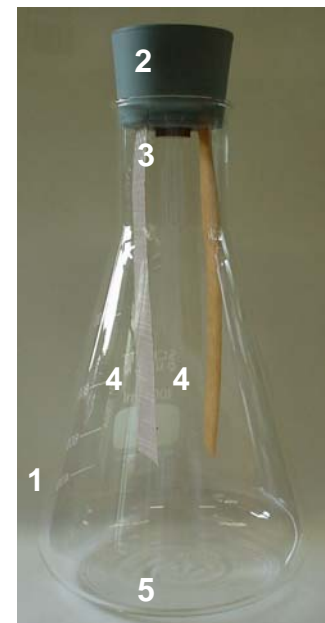
This method standardised by the German armed forces is used to determine the corrosion protection effect of VCI papers and films on a defined test object of constructional steel.

A glass container (1) is sealed with a rubber bung (2) in which a test object made of constructional steel (3) with a machined surface and two strips of VCI paper/film (4) are fixed. The glass container contains a mixture of water and glycerine (5).

After a period of 22 h, which serves as the build-up phase for the VCI active substance, the glass container is heated from room temperature to 40 °C in a fan oven (2 h).

Moisture condenses on the surface of the test object, resulting in corrosion on the control sample without VCI. The test objects in the containers with VCI should display little or no corrosion.

The corrosion symptoms are documented and the protective effect is assessed by comparison with the control sample.



**Requirements of TL 8135-0002 (Appendix A)
for the corrosion protection effect:**

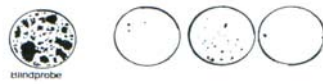
Evaluation of the test objects



Keine korrosionsschützende Wirkung



Geringe korrosionsschützende Wirkung



Mittlere korrosionsschützende Wirkung



Gute korrosionsschützende Wirkung

Corrosion protection effect

None (Grade 0)

Slight (Grade 1)

Middle (Grade 2)

Good (Grade 3)

Test results:

	Test objects	
	Control sample (without VCI)	Protected samples with VCI crepe paper "M82I (PI), Crepe Mix"
Evaluation		
Corrosion symptoms	Corrosion on the entire surface	All three test objects: No visible corrosion (only very small isolated dots)
Corrosion protection effect		Grade 3 Good corrosion protection effect

Director of the Institute

Official in Charge

Prof. Dr. H. Kontny

Dipl.-Ing. W. Reimers