

Expert Report N°. 3408/09/13

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Sachverständiger für Korrosionsschutz
Expert for Corrosion Protection

**Testing impact resistance of
“QuickSpray Industrial”
according to DIN EN 10290, class A, typ 3
08.2004**

Client: Voelkel Industrie Produkte GmbH
Lohenstr. 11
82166 Graefelfing
Germany

Order No.: 49; 19.08.2013

This expert report contains:

- 1 cover sheet
- 2 pages text
- 2 tables

1 Introduction

The company Voelkel Industrie Produkte GmbH, placed an order with me for testing impact resistance of the polyurethane-coating (PUR-coating) “QuickSpray Industrial” according to DIN EN 10290, class A, typ 3; 08.2004.

For this test I was provided with coated steel plates 300 mm • 300 mm.

2 Test

Table 1 summarizes the test conditions and the corresponding requirements. Detail information were present in table 2.

3 Result

The tested PUR-Coating “QuickSpray Industrial” fulfills for impact resistance the requirement of DIN EN 10 290, class A, typ 3; 08 2004.

4 Normative reference

DIN EN 10290 Steel tubes and fittings for onshore and offshore pipelines - External liquid applied polyurethane and polyurethane-modified coatings

Korrosionstechnik Heim



Dipl. Ing. Th. Heim



Table 1

DIN EN 10 290, class A, typ 3					
Properties	Clause	Test Condition	Requirements (Nominal Value)	Actual Value	Table
Impact resistance	7.7	spherical diameter 25 mm; height: 1 m the tube interior was supported between two point of impacts: >50 mm; holiday detection: 8V/µm number of impacts for each test condition: 10	impact energy	5 J/mm k = 1,0	2
			max. impact energy	for information	
			impact energy	3 J • k • mm thickness of the coating k = 1,0	2
			max impact energy	for information	

Table 2

DIN EN 10 290						
Impact resistance						
temperature (23 ± 2) °C						
impact energy in J / mm	5	8	9	10	11	
holidays in %	0	0	0	40	100	
temperature (-5 ± 3)°C						
impact energy in J / mm	3	5	7	8	9	
holidays in %	0	0	0	10	30	