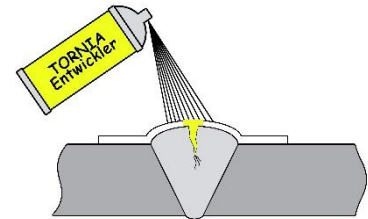


TORNIA TRES-CHECK PREMIUM

Typ 437 Entwickler (developer)

Form e and d
(non-aqueous solvent-based wet developer)



TORNIA TRES-CHECK PREMIUM Typ 437 Entwickler

is a very fine-grained, non-aqueous, solvent-based wet developer for penetrant testing (type I), contrast colour penetrant testing (type II) and fluorescent contrast colour penetrant testing (type III).

Typ 437 Entwickler enables good detectability of indications. Therefore, the developer is ideally suitable for inspections which require detectability of finest indications.

Typ 437 Entwickler is sprayed onto the surface to be tested. The developer dries quickly and produces a thin uniform layer on the test area.

After inspection the dried developer can be removed from the test area with **Typ 436 Reinigers**.

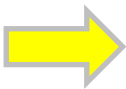
Typ 437 Entwickler complies with the requirements of penetrant testing acc. to EN ISO 3452 und ASTM E-165.

	Typ 437 Entwickler Loose Ware	Typ 437 Entwickler Aerosol
Colour	Whitish	White
State of aggregation	Liquid	Aerosol
Odour	Alcohol	Alcohol
Flash point (EN ISO 2719)	12 – 13 °C (ca. 55°F)	Not determined
Vapour pressure (20°C)	approx. 58 hPa	3,100 hPa
Density (20°C, DIN 51757)	approx. 0.790 g/cm ³	0.66 g/cm ³
Water solubility	Completely soluble	Partly soluble
Solvent content	--	20 - 25 %
Solid content	--	9.44 %
Evaporation residues / solids content	< 5 mg	< 5 mg
Shelf life	5 years	4 years

Corrosion		Elemental analysis	
Aluminium	none	Sulfur	0.017 wt %
Magnesium	none	Chloride	0.004 wt %
Carbon steel	none	Fluoride	0.010 wt %

Specifications	Delivery form		Art. no.
EN ISO 3452:2014	Aerosol	500 ml	GT01-437001
ASTM D-516	Container	1 L	GT01-437002
ASTM E-165	Container	10 L	GT01-437003
	Container	200 L	GT01-437004

Health / safety / shipping		
	Typ 437 Entwickler Lose Ware	Typ 437 Entwickler Spray
Contains no known Carcinogens	✓	✓
Avoid inhalation and/or repeated skin contact	✓	✓
Wearing of protective gloves and safety glasses is recommended	✓	✓
Never expose to temperatures above 50°C (122°F)	✓	✓
Storage class TRGS 510	3	2B
Do not store near oxidants	✓	✓
ADR/RID	UN 1170 (Ethanol)	UN 1950 (Pressure gas packs)
VOC-Richtlinie 2004/42/EG	--	90.63% (598.158 g/l)
Disposal according to official regulations	✓	✓



For further information, see Safety Data Sheet of developer.

Further products of the new generation

TORNIA



www.helling-group.com

Subjekt to technical changes
Tornesch April 2021