



**DECLARATION OF PERFORMANCE**  
**DoP no. 2873-08412/1 EN**

Version: 1

Print date:04.01.2021

1. Unique identification code of the product-type: **TOX Liquix Pro 1, TOX Liquix Pro 1 snow**  
2. Intended use/es:

Product	Intended use
Metal anchors for use in concrete	For rebar connection

3. Manufacturer: **TOX-Dübel-Technik GmbH, Brunnenstraße 31, D-72505 Krauchenwies Ablach**  
4. Authorised representative: --  
5. System/s of AVCP: **1**  
6. a) Harmonised standard: --  
Notified body/ies: --  
6. b) European Assessment Document: **ETAG 001 part 5; April 2013**  
European Technical Assessment: **ETA-17/0338; 07.04.2017**  
Technical Assessment Body: **DIBt**  
Notified body/ies: **2873 TU Darmstadt**

7. Declared performance/s:

**Mechanical resistance and stability (BWR1)**

Essential characteristics	Performances
Design values of the ultimate bond resistance	See Annex C1

**Safety in case of fire (BWR 2)**

Essential characteristics	Performances
Reaction to fire	Rebar connection satisfy requirements for Class A1
Resistance to fire	No performance assessed [NPD]

8. Appropriate Technical Documentation and/or Specific Technical Documentation: --

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

i.A. Daniel Wilhelm (Applications Engineering)  
Krauchenwies-Ablach, 04.01.2021

## Minimum anchorage length and minimum lap length

The minimum anchorage length  $\ell_{b,min}$  and the minimum lap length  $\ell_{0,min}$  according to EN 1992-1-1:2004+AC:2010 ( $\ell_{b,min}$  acc. to Eq. 8.6 and Eq. 8.7 and  $\ell_{0,min}$  acc. to Eq. 8.11) shall be multiply by a factor according to Table C1.

**Table C1: Factor related to concrete class and drilling method**

Concrete class	Drilling method	Factor
C12/15 to C50/60	Hammer drilling and compressed air drilling	1,0

**Table C2: Design values of the ultimate bond resistance  $f_{bd}$  in N/mm<sup>2</sup> for all drilling methods for good conditions**

according to EN 1992-1-1:2004+AC:2010 for good bond conditions  
(for all other bond conditions multiply the values by 0.7)

Rebar - Ø	Concrete class								
	C12/15	C16/20	C20/25	C25/30	C30/37	C35/45	C40/50	C45/55	C50/60
$\phi$									
8 to 25 mm	1,6	2,0	2,3	2,7	3,0	3,4	3,7	4,0	4,3
28 bis 32 mm	1,6	2,0	2,3	2,7	3,0	3,4	3,7	3,7	3,7

**Tox Injection System Liquix Pro 1 for rebar connection**

**Performances**

Minimum anchorage length and minimum lap length  
Design values of ultimate bond resistance  $f_{bd}$

**Annex C 1**