

Für Mensch & Umwelt

DVGW Cert

Elastomers in Contact with Drinking Water – Health Based Requirements

Sektion II 3.4 Distribution of Drinking Water

Overview

- 1. 3RD REVISION OF KTW EVALUATION CRITERIA DOCUMENT**
- 2. RECOMMENDATION FOR THE CONFORMITY ASSESSMENT**
- 3. TRANSITION PERIOD**

3rd Revision of the KTW Evaluation Criteria Document

Main Amendment

- Inclusion of elastomers und TPE

Status

- Published 16 March 2022
- Requirements for elastomers und TPE legally binding on 1 March 2025

3rd Revision of the KTW Evaluation Criteria Document

Amendment of the positive list for elastomers

- Dicumylperoxide (DCP)
- 2,5-Dimethyl-2,5-di(tert-butylperoxy)hexane (DHBP)
- ...

3rd Revision of the KTW Evaluation Criteria Document

Amendment of the requirements pertaining the Enhancement of the Microbial Growth (EMG)

➤ Introduction of additional limits and requirements

M1: $\leq (0,05+0,02) \text{ ml/800 cm}^2$

M2: $\leq (0,12+0,03) \text{ ml/800 cm}^2$

M3: $\leq (0,20+0,03) \text{ ml/800 cm}^2$ (exclusively for product used with cold water)

3rd Revision of the KTW Evaluation Criteria Document

Amendment of the requirements pertaining the Enhancement of the Microbial Growth (EMG)

	Product group	F_c in d/dm	Requirements for method 2 DIN EN 16521	
			Products acc. Annex A und B	Products acc. Annex D
Pipes (P1)	ID < 80 mm (ID= Inner Diameter)	20	M1	M1
	80 mm ≤ ID < 300 mm	10	M1	M1
	ID ≥ 300 mm	5	M1	M1
Ancillaries (P1)	for pipes ID < 80 mm	2	M1	M1
	for pipes 80 mm ≤ ID < 300 mm	1	M1	M2
	for pipes ID ≥ 300 mm	0,5	M1	M2
Components of ancillaries (P2)	for pipes ID < 80 mm	0,2	M1	M2
	for pipes 80 mm ≤ ID < 300 mm	0,1	M1	M3
	for pipes ID ≥ 300 mm	0,05	M1	M3
Small components of ancillaries (P3)	for pipes ID < 80 mm	0,02	M1	M3
	for pipes 80 mm ≤ ID < 300 mm	0,01	M1	M3
	for pipes ID ≥ 300 mm	0,005	M1	M3

3rd Revision of the KTW Evaluation Criteria Document

Risk based approach for elastomers

Risk group	Products / Components	Examples
P1	Pipes, > 10 % surface fraction of ancillaries	hoses, coated slide valves, flap valves
P2 (sum of components of the same polymer)	≤ 10 % surface fraction of ancillaries	O-ring and flat seals
P3 (sum of components of the same polymer)	≤ 1 % surface fraction of ancillaries	
P4 (sum of components of the same polymer)	≤ 0.1 % surface fraction of ancillaries	

3rd Revision of the KTW Evaluation Criteria Document

Risk based approach for elastomers

	F_C in d/dm	Examples	Formulation	Basic Requirements	Formulation specific requirements	Additional requirements	EMG requirements
P1	$\geq 0,5$	hoses, coated slide valves, flap valves	Yes applies to formulation	Yes applies to product / component	Yes applies to product / component	Yes applies to product / component	Yes applies to product / component or formulation
P2	$0,05 \leq F_C < 0,5$	O-ring and flat seals	Yes applies to formulation	Yes applies to formulation	Yes applies to formulation	Yes applies to formulation	Yes applies to formulation
P3	$0,005 \leq F_C < 0,05$		No	Yes applies to formulation	No	No	Yes applies to formulation

Recommendation for the conformity assessment

Motivation - timing

➤ 21 March 2019:

KTW evaluation criteria document and recommendation for the conformity assessment published

➤ 21 March 2021:

KTW-, coatings- und lubricants guidelines were withdrawn

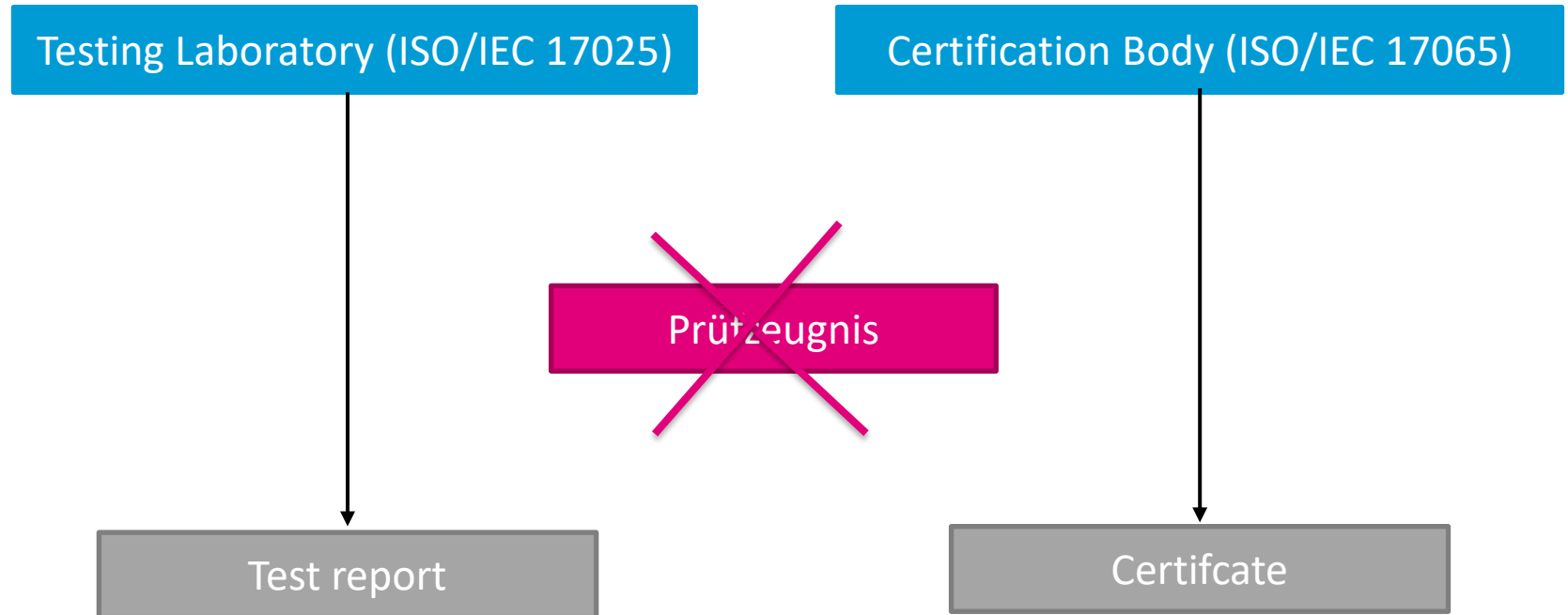
=> Prüfzeugnisse become void!

Recommendation for the conformity assessment

Motivation

- Substitution of “Prüfzeugnisse” according to the guidelines when the guidelines were transferred in the new KTW evaluation criteria documents
- For “Prüfzeugnisse” test samples might not correspond to products on the market => 1+-System required
- 1+-System necessary for mutual recognition within 4MSI
- Reference to new DWD

Recommendation for the conformity assessment



Recommendation for the conformity assessment

System 1+ according Construction Product Regulation

The duties of the certification body in this shall be:

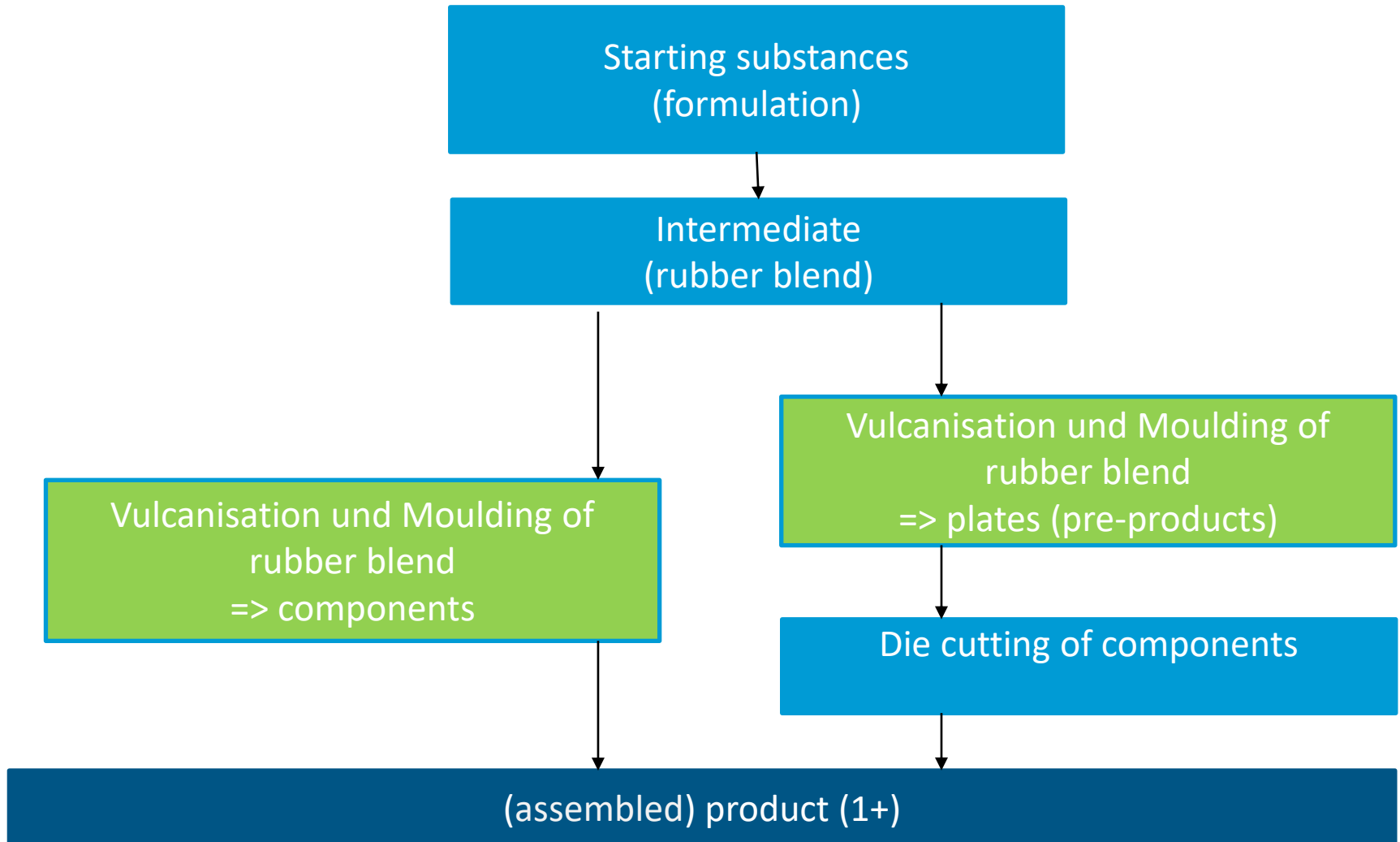
- initial inspection of the manufacturing plant and of factory production control,
- monitoring of test specimen sampling and type testing of the product,
- continuous surveillance, assessment and evaluation of factory production control,
- audit-testing.

Recommendation for the conformity assessment

Risk based approach

	F_c in d/dm	Examples	System for the Conformity Assessment
P1	$\geq 0,5$	hoses, coated slide valves, flap valves	1 + -System,
P2	$0,05 \leq F_c < 0,5$	O-ring and flat seals	Type testing (corresponds to Prüfzeugnis)
P3	$0,005 \leq F_c < 0,05$		Type testing (corresponds to Prüfzeugnis)

Recommendation for the conformity assessment



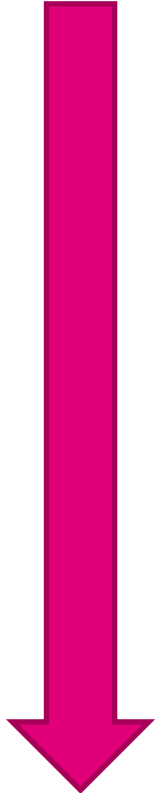
Transition Period

UBA Information documents

- Transition from UBA guidelines to the evaluation criteria document for plastics and other organic materials in contact with drinking water (transitional regulation KTW-BWGL)
- Information on transposition of Elastomer Guideline and TPE transitional regulation into the KTW evaluation criteria document

Transition Period

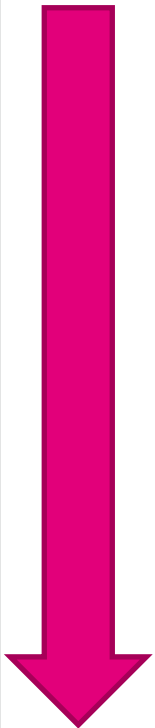
Time line - Requirements



9 July 2021	Amendment of positiv list part 1 (guideline)
31 Dec 2021	Withdrawal of positive list part 2
16 Mar 2022	3 rd Revision of KTW evaluation criteria document (amendment of elastomers und TPE)
1 March 2025	Requirements for elastomers and TPE become legal binding Withdrawal of guidelines

Transition Period

Time line – Conformity Assessment



	Prüfzeugnisse acc. guideline	Certificate nach UBA-Empfehlung
9 July 2021	Prüfzeugnisse for blends with new evaluated peroxides	
31 Dec 2021	Prüfzeugnisse based on formulations with starting substances in positive list part 2 expire	
16 Mar 2022		Certificates for elastomers und TPE acc. KTW evaluation criteria document
21 Mar 2023		End of suspension of 1+ certification (Corona-certificat)
	Test reports for components with starting substances of PL part 2 can still be used.	Transposition of Prüfzeugnisse into certificates
1 Mar 2025	Prüfzeugnisse expire	

Vielen Dank für Ihre Aufmerksamkeit

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