

# Pano PVC-Compound D

## Migrationdata according VO EU 10/2011

**Designation:** will be communicated under request

**Description:** Sealing-gasket based on PVC with plasticizer AMG

### 1. Closure-specific global migration

**For closures types:** TWO, TWS, TSB, TOB, DTO, DOB, DRO, DDO

**Conditions: 1 h 121°C and 10 d 40 °C**

Diameter [mm]	Simulant A 10% Ethanol		Simulant B Acetic acid 3 Gew. %		Simulant C 20% Ethanol	
	Average global migration [mg]	Mimumum jar volume 60 mg/kg [ml]	Average global migration [mg]	Mimumum jar volume 60 mg/kg [ml]	Average global migration [mg]	Mimumum jar volume 60 mg/kg [ml]
48	2,1	36	1,5	25	2,9	48
53	2,5	42	1,8	30	3,4	57
58	2,8	46	1,9	32	3,7	62
63	3,1	52	2,2	36	4,2	70
66	3,3	54	2,3	38	4,4	73
70	3,5	58	2,4	41	4,7	79
77	3,9	65	2,7	45	5,2	87
82	4,2	69	2,9	49	5,6	97
89	4,6	77	3,2	54	6,2	104
100	5,2	87	3,7	61	7,0	117

The values are calculated based on compound-contact-areas.

**Conditions: 1 h 121°C and 10 d 40 °C**

Diameter [mm]	Simulant D1 50% Ethanol		Simulant D2 Olive-oil		Simulanz D2 Isooctane	
	Average global migration [mg]	Mimumum jar volume 60 mg/kg [ml]	Average global migration [mg]	Mimumum jar volume 60 mg/kg [ml]	Average global migration [mg]	Mimumum jar volume 60 mg/kg [ml]
48	3,6	60	Conditional application	Conditional application	Conditional application	Conditional application
53	4,3	71				
58	4,6	77				
63	5,2	87				
66	5,5	92				
70	5,9	98				
77	6,5	109				
82	7,0	117				
89	7,8	129				
100	8,8	146				

The values are calculated based on compound-contact-areas.

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### 2. Specific migration

#### Substances with a specific migration limit

The compound contains following substances with a specific migration limit:

FCM	PM-Ref	Substance	CAS-No.	Restriction
14	33801	n-Alkyl (C10-C13)benzo sulfone acid	n.a.	SML = 30 mg/kg
27	48960	9,10-Dihydroxy-Stearin-acid	n.a.	SML = 5 mg/kg
127	26050	Vinyl chloride	75-01-4	SML = 0,01mg/kg
402	96240	Zink oxide	1314-13-2	SML = 25 mg/kg (as Zn)
496	71680	Penta erythritol-tetrakis [3- (3,5-di-tert-butyl-4-hydroxy phenyl)-propionate]	6683-19-8	TDI = 3 mg/kg
783	55910	Ester of hydrated castor oil monoglycerides with acetic acid	736150-63-3	SML = 60 mg/kg
n.a.	72046	Ammonium persulfate	7727-54-0	SML = 0,05mg/kg
n.a.	n.a.	Organic Peroxides	n.a.	SML = 0,05 mg/kg

The compound contains furthermore components where the generic SML of 60 mg/kg according art. 11 (2) can be applied. The identity of these components is confidential but may be communicated to independent testing institutes in necessary cases.

**Based on the tests applied considering the restriction under No.1 there is no exceedance of the limits expected.**

### 3. Final Evaluation of the migration results

Assumed that the compound will be used for a closure with a diameter of 66 mm on a 200 ml size jar with a total inside surface of 195 cm<sup>2</sup> and a food contact area of 5 cm<sup>2</sup> following data can be calculated

**Conditions: 1h 121°C and 10 d 40°C**

Simulant	mg/ closure	mg/dm <sup>2</sup>	mg/kg Food
A 10 % Ethanol	3,3	1,65	16,5
B 3% Acetic acid	2,3	1,15	11,5
C 20% Ethanol	4,4	2,2	22
D1 50% Ethanol	5,5	2,75	27,5

In general every type of compound has to be tested on its suitability for the individual food.

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### 4. DUAL USE Additives

The compound contains according its formulation following substances which may also be used as food-ingredients:

<b>FCM</b>	<b>PM Ref</b>	<b>Bezeichnung</b>	<b>CAS-Nr.</b>	<b>E-Nr.</b>
610	35120	Titanium dioxide	13463-67-7	E 171
k.a.	k.a.	Silicon dioxide		E 551