Industrial coating
Anti-corrosion 2K epoxy coating, water-based, grey
e. g. for silo coating, direct-to-metal (DTM)

Basis Epoxy resin (solid epoxy resin and amine)

	Guide Formulation of IMCD		ICO-956-VIE	ICO-958-VIE	ICO-959-VIE
		Corrosion category ISO 12944-2	C2	C3	C5
Component A	*-- part 1 --*				
	Itapox Water 110	(1)	31.20	31.20	31.20
	Dowanol DPnB	(2)	3.10	3.10	3.10
	Byk-024	(3)	0.30	0.30	0.30
	Disperbyk-194 N	(3)	1.00	1.00	1.00
	Demineralized water		7.70	7.70	8.00
	-- part 2 --				
	Billions R-996	(4)	14.70	14.70	14.70
	Bayferrox 303 T	(5)	1.00	1.00	1.00
	AKTISIL AM	(6)	15.60	12.30	9.00
	Steashield 10	(7)	5.20	5.00	5.50
	Heucophos ZPO	(8)	---	3.50	6.00
	-- part 3 --				
	Itapox Water 110	(1)	18.90	18.90	18.90
	Byk-011	(3)	1.00	1.00	1.00
	Byk-3480	(3)	0.30	0.30	0.30
	Total parts by weight		100.00	100.00	100.00
Component B	Itamid Water 512	(1)	6.70	6.70	6.70
	Nalzin FA 179	(9)	0.50	0.50	0.50
	Total parts by weight		7.20	7.20	7.20

Recommendation According to expected environmental conditions:

C2 Low corrosivity – Nonheated buildings with low humidity, rural areas with low air pollution and low humidity

C3 Medium corrosivity – Buildings with moderate humidity such as breweries, dairies or laundries, urban / industrial areas with moderate air pollution, coastal areas with low salt exposure

C5 Very high corrosivity – Areas with high humidity, air pollution or chemical exposure like power plants, paper mills or industrial areas, coastal areas with high salt exposure

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Preparation	- mix raw materials from part 1 for 10 min with 4 m/s
Component A	- stir in raw materials from part 2 and grind for 30 min at 20 m/s until a fineness of grind of 20 µm
	- add ingredients of part 3 and mix for 10 min with 6 m/s
Component B	- mix raw materials for 5 min with 5 m/s then let it rest overnight

Application	- add Component B to Component A and mix for 5 min at 2.5 m/s
	- dilution with 13 % demineralized water to achieve airless-spraying viscosity
	- dry film thickness as indicated, 40 - 115 µm

Suppliers

(1) ddchem
(2) Dow Chemical Company
(3) Byk Chemie
(4) LB Group
(5) Lanxess
(6) HOFFMANN MINERAL
(7) Imerys Performance Minerals
(8) Heubach
(9) Elementis

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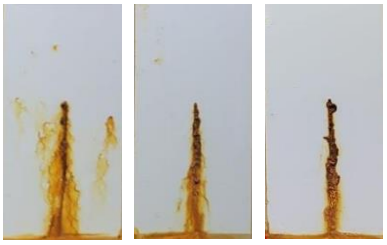
			ICO-956-VIE	ICO-958-VIE	ICO-959-VIE
	Corrosion category ISO 12944-2		C2	C3	C5
Properties	Open time	min	14	39	39
	Dust-free time	h	< 3	< 6	< 5
	Tack-free time	h	< 11	< 16	< 13
	Pendulum hardness, Koenig 1 day	s	25	18	21
	3 days	s	36	22	24
	7 days	s	39	45	49
	Brookfield viscosity Component A *(RV06, 10 rpm, 22.5 °C)*	Pa·s	46.5	34.8	48.5
	Brookfield viscosity Components A+B *(RV06, 10 rpm, 22.5 °C)*	Pa·s	20.5	23.8	27.5
	Sag resistance	µm		all: 275	
	Dry film thickness DFT 50 µm				
	Cross cut			all: GT 0	
	Impact resistance (1 kg)	cm		all: > 100	
	Bending test conical, Mandrel	mm		all: no cracks	

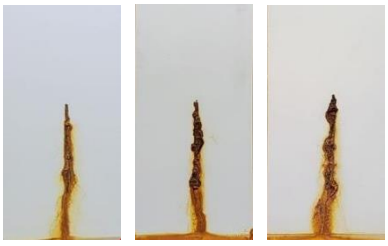
Salt spray test, DIN EN ISO 9227 NSS

DFT 40 µm



250 h | 250 h | 1000 h

DFT 115 µm



250 h | 500 h | 1000 h

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