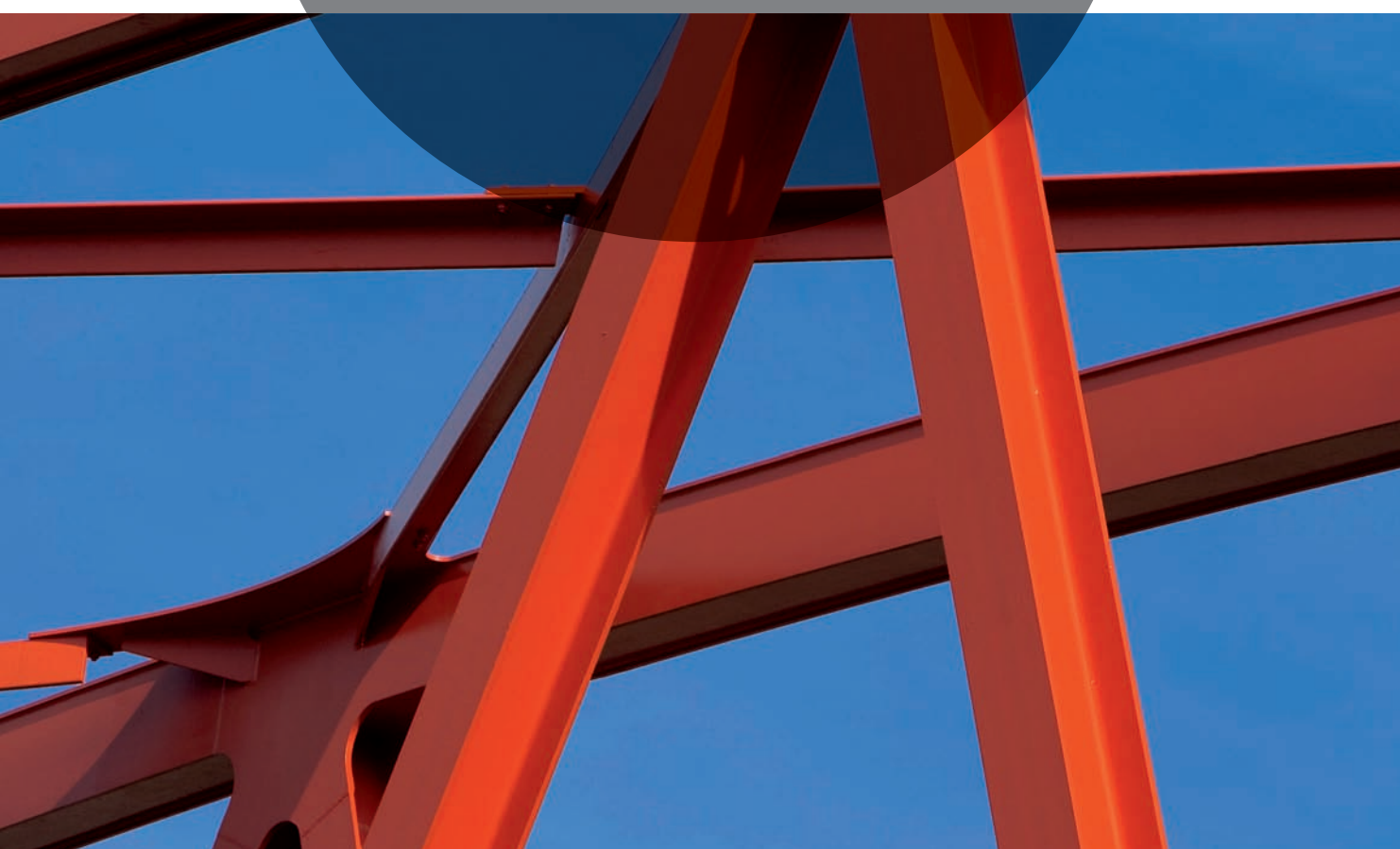




Polymer emulsions

for metal coatings

Bright future.
Water-based emulsions.



Polymer emulsions for metal coatings

	Ecrylic KS 441	Ecrylic KS 447	Ecrylic RA 576 H
Type of emulsion	styrene-acrylate copolymer emulsion with fine particles	styrene-acrylate copolymer emulsion with fine particles	Copolymer emulsion based on acrylic-/methacrylic acid ester
Technical data			
Solid content:	42,0 ± 1,0%	50,0 ± 1,0%	42,0 ± 1,0%
pH-Value:	8,0 - 9,0	7,0 - 9,0	7,0 - 8,0
Particle size:	app. 0,10 µm	app. 0,10 µm	app. 0,10 µm
MFFT:	40 °C	13 °C	0 °C
Viscosity (Brookfield):	60 - 260 mPas	1000 - 4000 mPas	50 - 300 mPas
Specification	The data for solid content, viscosity and pH-Value are determined by our quality control department. The product is specified with this data.		
Characteristics	<ul style="list-style-type: none"> - good adhesion on different metals - good corrosion protection 	<ul style="list-style-type: none"> - very good adhesion even on steel, zincd or tinned steel panels - very good corrosion protection - elastic - self-crosslinking 	<ul style="list-style-type: none"> - clear film - self-crosslinking - very elastic - block resistant - non yellowing - good alkali resistance - early water-resistance - low water absorption - wet adhesion - very good adhesion on difficult substrates
Application	<ul style="list-style-type: none"> - shop prime - top coats - anticorrosive primer 	<ul style="list-style-type: none"> - anticorrosive primer 	<ul style="list-style-type: none"> - wash primer - primer - top coat

Note

The information given in this brochure is reliable to the best of our knowledge. It is supposed to serve as a guideline for further processing our product. Due to the many influences in processing, however, no guarantee can be construed



Introduction

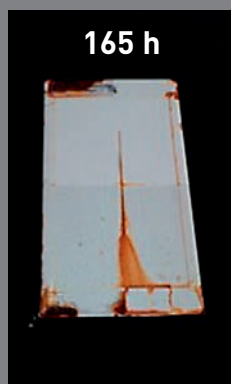
Metals for exterior use have to be treated with a protective and/or decorative coating. This was, and often still is solvent based. Most of these systems have been under close examination lately, and since a lot of years the tendencies even in this application point to more environmental friendly systems. Enhanced is this evolution is driven by the EU-Directive 2004/42/EG which dictates a drastic decrease of the use of solvents. This can be achieved in different ways. In some areas the solid content has been increased, in other areas new technologies like UV-curing systems pop up.

Another possibility is the use of strictly water-borne systems. Ecronova Polymer GmbH offers such systems for some years now to the paint and coatings industry for various applications. This brochure outlines our products for the coatings of metals.



Saltspray test

Substrate	Steel Q-Pannels
Applikation	Spray
Assemble	Anticorrosive primer 80-100µm + 2 component top coat based on Ecrylic RA 646 H app. 60-70µm
Drying	7d/rt



Anticorrosive primer based on Ecrylic KS 441



Anticorrosive primer based on competitor (styrene acrylic emulsion)



Anticorrosive primer based on competitor (styrene acrylic emulsion)



Anticorrosive primer based on Ecrylic KS 447

Starting formulations

Ecrylic KS 447

Anticorrosive primer

1 Ecrylic KS 447	Ecronova Polymer GmbH	25,00
2 Water		4,40
3 Butyldiglykol		2,00
4 Hydropalat 7003	Cognis Deutschland GmbH	0,50
5 Byk 019	Byk Chemie GmbH	0,20
6 Byk 024	Byk Chemie GmbH	0,20
7 Bentone EW	Elementis Specialties, Inc.	0,40
8 Kronos 2300	Kronos International, Inc.	8,70
9 Halox SZP 391	C.H. Erbslöh KG	4,00
10 Luzenac 10 M O	Luzenac Deutschland GmbH	8,00
11 Plastorit 0000	Luzenac Deutschland GmbH	4,00
12 Water		3,00
pos. 1-12 grinding mill until grinding <20µm		
13 Water		5,00
14 Ecrylic KS 447	Ecronova Polymer GmbH	25,00
15 Byk 346	Byk Chemie GmbH	0,30
16 Halox 570, 30% Water	C.H. Erbslöh KG	1,00
17 Halox 515	C.H. Erbslöh KG	0,50
18 DSX 1514	Cognis Deutschland GmbH	0,50
19 Tego Airex 901 W	Evonik Industries	0,30
20 Water		7,00
Total		100,00

Viscosity Sp. 5	after 1 d/rt	3000 mPas
Gloss 60°	after 1 d/rt	20 E
Solid		60 %
Density		1,22 g/cm ³

Ecrylic RA 576 H

Anticorrosive primer

1 Ecrylic RA 576 H	Ecronova Polymer GmbH	17,50
2 Byk 022	Byk Chemie GmbH	0,20
3 Water		8,40
4 Acticide MBN	Thor GmbH	0,20
5 Disperbyk 191	Byk Chemie GmbH	2,10
6 Kronos 2300	Kronos International Inc	9,00
7 Halox SZP 391	Halox	4,20
8 Halox 570	Halox	1,00
9 Micro Talk IT Extra	Mondo Minerals B. V.	15,00
10 Ecrylic RA 576 H	Ecronova Polymer GmbH	38,60
11 Texanol		1,00
12 Byk 022	Byk Chemie GmbH	0,30
13 Acrysol RM 2020	Dow Advanced Materials	0,80
14 Acrysol RM 825	Dow Advanced Materials	0,30
15 Byk 346	Byk Chemie GmbH	0,40
16 Halox 515	Halox	1,00
Total		100,00



Starting formulations

Ecrylic KS 441

Shop primer			
1	Water		8,60
2	Laponite RD	Rockwood Clay Additives GmbH	0,07
3	Disperbyk 191	Byk Chemie GmbH	1,30
4	Actitide MBN	Thor GmbH	0,20
5	Drewplus TS 4385	Ashland-Drew Industrial	0,05
6	AMP 90	Angus Chemie GmbH	0,08
7	Butylglycol		3,00
8	Aerosil 200	Evonik Industries	0,65
9	Bayferrox 130 M	Lanxess AG	5,00
10	Mistron Monomix	Luzenac Deutschland GmbH	3,20
11	Budit 222	Chemische Fabrik Budenheim AG	9,20
12	Hydrocarb L	Omya GmbH	9,10
13	Water		2,00
14	Ecrylic KS 441	Ecronova Polymer GmbH	54,00
15	Water		1,00
16	Drewplus SG 4551	Ashland-Drew Industrial	0,50
17	Acrysol RM 8	Dow Advanced Materials	0,08
18	Butylglycol		0,30
19	Water		0,05
20	Ascotran H10	Ascotec	0,30
21	Surfynol 104 E	Air Products & Chemicals	0,25
22	Water		1,07
Total			100,00

Ecrylic RA 576 H

Top coat, semi gloss

1	Water		3,00
2	Propylenglycol		2,00
3	Foamex 805	Evonik Industries	0,20
4	AMP 90	Angus Chemie GmbH	0,30
5	Actitide MBN	Thor GmbH	0,20
6	Ascotran H10	Ascotec	0,20
7	Dispex GA 40	Ciba Lampertheim GmbH	0,50
8	Kronos 2300	Kronos International Inc	20,00
9	Acematt TS 100	Evonik Industries	0,50
10	Water		4,00
11	Ecrylic RA 576 H	Ecronova Polymer GmbH	56,00
12	Texanol		1,00
13	Foamex 805	Evonik Industries	0,40
14	Byk 346	Byk Chemie GmbH	0,60
15	Water		3,60
16	Acrysol RM 2020	Dow Advanced Materials	1,20
17	Acrysol RM 825	Dow Advanced Materials	0,50
18	Water		5,20
Total			100,00





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A large, dynamic splash of bright green liquid, possibly paint or emulsion, is the central visual element. The splash is captured in mid-air, with several distinct droplets and a large, flowing mass. The background is white, and a semi-transparent grey circle is overlaid on the splash, serving as a backdrop for the text.

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