Esacote® Viscolam® Spheromers®

Solutions for metal coatings

Pre-treatments

- ESACOTE® PUDs, acrylic-urethane and acrylic emulsions suitable for Cr(VI), Cr(III) and Cr-Free formulations.
- ESACOTE® PUDs, acrylic-urethane and acrylic emulsions with improved adhesion on Zn/Al alloys, galvanized iron (HDGI/EGI), aluminium, and cold rolled steel.
- ESACOTE® PUDs, acrylic-urethane and acrylic emulsions with outstanding flexibility for coil coating applications.
- ESACOTE® PUDs and acrylic emulsions with enhanced alkali resistance.
- ESACOTE® non-ionic and cationic PUDs with good stability in low pH.
- ESACOTE® radiation curable PUDs with outstanding performance.

Primers

- ESACOTE® PUDs with enhanced chemical, mechanical and weathering resistance.
- Specific grades with low VOC.
- ESACOTE® PUDs, acrylic-urethane and acrylic emulsions with outstanding flexibility for coil coating application.
- ESACOTE® non-ionic and cationic PUDs with good stability in low pH and cationic formulations.
- ESACOTE® radiation curable PUDs with outstanding performance.
- VISCOLAM® synthetic rheology additives that solve most of the technical challenges in production and application of water based metal coating formulations.

Top coats

- ESACOTE® PUDs with enhanced chemical, mechanical and weathering resistance.
- Specific grades with low VOC.
- ESACOTE® PUDs, acrylic-urethane and acrylic emulsions with outstanding flexibility for coil coating application.
- ESACOTE® PUDs which provide good compatibility with pigmented pastes for coloured top coats.
- ESACOTE® radiation-curable PUDs with outstanding performance.
- ADIWAX DSP solvent wax preparation for flip-flop effect and antisettling.
- SPHEROMERS® polymeric matting agent based on AC beads for deep matt and scratch resistance as well as for special texturized effect.
- VISCOLAM® synthetic rheology additives that solve most of the technical challenges in production and application of water based metal coating formulations.

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Water based resins for metal coating applications

information & typical value chart

Products families and main features

		Main application				Chemical properties					Film properties	
		Antifingerprint	Pretreatment	Primer	Topcoats	Chemical nature	Solvent (%)	Solvent type	Dry content (%)	pH	MFFT (°C)	König hardness (sec)
Water based acrylic emulsions												
Esacote® AC 301	Hydroxyl functional				x	AC	0	Solvent free	40	7.0-8.0	~60	95
Esacote® AC 302	Hydroxyl functional	x	x	x	x	AC	0	Solvent free	50	7.0-8.0	~50	50
Water based urethane acrylic dispersions												
Esacote® PU 98/N	Enhanced adhesion	x	x			PC	15	NEP	31	7.0-9.0	~0	130
Esacote® PU 147	Enhanced alkali resistance	x	x			PE	5	NEP	35	7.5-8.5	~0	136
Esacote® UA7023	Selfcrosslinking hybrid	x	x	x	x	PC	0	Solvent free	35	7.0-9.0	~60	140
Esacote® UA 8048*	Solvent free hybrid	x	x			PE	0	Solvent free	35	7.0-9.0	~50	140
Water based UV/EB curable polyurethane dispersions												
Esacote® LX 7100	High performance and hardness	x	x	x	x	PC	<1	MEK	38	7.0-9.5	~0	150
Water based BIOBASED polyurethane dispersions												
Esacote® BIO 118	33% Bio based carbon content	x	x			PES	8	DPGDME	32	7.5-8.5	~43	150
Esacote® BIO 148*	33% Bio based carbon content	x	x			PES	4.5	DPGDME	35	7.0-9.0	~15	100
Esacote® BIO 5045	68% Bio based carbon content	x	x			PE	3	DPGDME	30	7.0-9.0	~0	45
Water based polyurethane dispersions												
Esacote® PU 1046*	NON IONIC - Low pH stable	x	x			PE	5.0	NMP	35	6.0-8.0	~0	NA
Esacote® PU 40	Excellent overall compatibility			x		PES	<1	MEK	35	7.5-9.5	~0	50
Esacote® PU 61	Antiscratch			x	x	PC	8	DPGDME	35	7.0-9.0	25	127
Esacote® PU 62	Excellent overall compatibility			x		PES	5	DPGDME	35	7.0-9.0	~0	38
Esacote® PU 6419	Excellent alkali resistant	x	x			PE	15	NEP	31	7.0-9.0	~0	150
Esacote® PU 6814	Excellent film formation/hardness	x	x			PC	14	NMP	35	7.0-9.0	~0	145
Esacote® PU 70	Excellent film formation/hardness	x	x			PC	8	NEP	35	7.0-9.0	~10	120
Esacote® PU 7020	Flexibility / chemical resistance			x	x	PC	4	DPGDME	35	7.0-9.0	~0	35
Esacote® PU 77	Improved mech. / chem. resistance	x	x			PC	<0.5	MEK	35	7.0-9.0	~35	105
Esacote® PU 931	NON IONIC - Low pH stable	x	x			PE	<1	Acetone	30	8.0-10.0	~0	NA
Esacote® PU C1	CATIONIC - High water resistance	x	x	x		PC	<1	MEK	30	4.0-6.0	~0	14
Esacote® PU HMF	Alcohol/alkali resistance	x	x			PES	8	NEP	30	8.5 -10.5	~0	115
Rheological modifiers							**Chemico-physical properties**					
Viscolam® 630	High shear thinning HASE					-	0	Solvent free	30	2.0-4.0	-	-
Viscolam® NT 74	High shear thinning HASE					-	0	Solvent free	30	2.0-4.0	-	-
Viscolam® PS 166	Low/Medium Shear HEUR					-	23	2 Butoxyethanol	40	5.0-7.0	-	KU builder
Viscolam® PS 167	Low/Medium Shear HEUR					-	23	Butyldiglycol	40	5.0-7.0	-	KU builder
Viscolam® PS 170 AIR	Medium Shear HEUR 20% biobased carbon content					-	0	Solvent free	46.5	4.0-10.0	-	KU builder
Viscolam® PS 202	High Shear HEUR					-	0	Solvent free	20	4.0-7.0	-	ICI builder
Acrylic polymer beads												
Spheromers® CA 6					x	Crosslinked PMMA			6µ	matting agent		
Spheromers® CA 10					x				10µ	texturizing agent with matt effect		
Spheromers® CA 15					x				15µ			
Spheromers® CA 20	Monosized spherical beads				x				20µ			
Spheromers® CA 30					x				30µ			
Spheromers® CA 40					x				40µ			
Spheromers® CA 60					x				60µ			

* development product

Above data cannot be considered as supply specification.

AC	acrylic	NA	not applicable
PC	polycarbonate	FCMD	food contact material declaration available
PE	polyether	DPGME	dipropylene glycol methyl ether
PES	polyester	DPGDME	dipropylene glycol dimethyl ether