ORGANİK KİMYA

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Redispersible Powder Polymers &
Polymer Emulsions & Specialty Chemicals

Construction Solutions

Company Profile

Starting its journey in 1924 as a chemicals trader, today, with over 100 years of experience in the chemicals industry, we have been providing solutions to a variety of markets and applications utilizing different technologies. Our manufacturing and service locations enable us to serve our customers all around the world.

We have been employing the power of science and customer intimacy since our humble beginnings and we started our polymer emulsions production in 1965 with this notion. Besides our Istanbul polymer emulsions plant with 170,000 tpa production capacity, we invested in a new plant with an 80,000 tpa production capacity in Rotterdam in 2007. With our perpetual ambition to grow our business, we increased our production capacity over 30 times in the past 30 years to reach 250,000 tpa. Serving more than 2,000 customers in over 80 countries, Orgal® is the brand that customers know and trust when it comes to polymer emulsions.

Leveraging our expertise in liquid polymer emulsions, Organik Redispersible Powders, ORP®, was established in 2011 with a diverse range of products in powder form to address the needs of the construction chemicals industry. Our redispersible powder polymer plant with 45,000 metric tons of production capacity was built in Tuzla, Istanbul to fulfill this mission.

Our Tuzla plant investment also includes hot melt production with a capacity of 12,000 metric tons to serve the industrial adhesives market.
Organik Kimya's customers enjoy valuable solutions for a variety of applications in 6 different business units:

- Coating Solutions
- Construction Solutions
- Textile & Leather Performance Solutions
- Pressure Sensitive Adhesives & Paper Solutions
- Industrial Adhesives Solutions
- Distribution & Industrial Solutions

With its focus on customer collaboration and service, dedication to innovation and technology while caring for the environment, Organik Kimya relentlessly works to add value to its customers.

What we have accomplished so far is only a glimpse of what we will accomplish in the future.

Innovation promotes Sustainability

Contributing to the sustainability of our environment, our society and our economy is one of our most important responsibilities in today's rapidly changing world. We need to produce together, work hard for the future and realize the footprints we leave behind.

We believe that we can lead a better life together and aim to create a positive impact for all our stakeholders. Managing our environmental impacts, investing in projects that contribute to social sustainability, and developing future proof products and services continues to be high on our agenda.

Organik Kimya is taking the lead in achieving the UN's Sustainable Development Goals.
We aim to become carbon neutral by 2050, continue our efforts in achieving environmental and social sustainability and investing in innovative solutions that contribute to circular economy. With all our efforts we contribute to SDGs 3,4,5,6,7,8,9,10,12,13 and 17.

For further information, please visit our sustainability report prepared in accordance with GRI Standards:
www.organikkimya.com/en/sustainability

Construction Solutions

In the ever changing and demanding construction market, innovative solutions, product quality and fast delivery to the market have been integral to respond to the market needs. quality and fast delivery to the market have been integral to respond to the market needs. Organik Kimya, supplying polymer emulsions to various markets since 1965, established a dedicated "Construction Solutions" business unit to better answer the needs of this industry. With its dedicated Research & Development, Sales, Marketing and Technical Solutions Teams, Organik Kimya's Construction Solutions Business Unit understands and delivers customer expectations.

The dedicated Research & Development and Commercial Teams have also been crowned with the inauguration of redispersible powder polymer plant. Today, Organik Kimya Construction Solutions Business Unit supplies the market with polymer emulsions, redispersible powder polymers and specialty additives.

Polymer Emulsions

Offering a wide array of styrene, vinyl acetate and acrylic chemical compositions, Organik Kimya Construction Solutions offers innovative solutions with various polymerization technologies for the cementitious and dispersion based construction chemicals markets.

Redispersible Powder Polymers

Construction Solutions provides solutions in carbon rich monomer combinations of vinyl versatate and acrylics that highlight properties such as water resistance, saponification resistance and flexibility.

Specialty Additives

Acrylic associative and non-associative rheology modifiers specifically are designed for fullfilling different application rheology requirements of different markets. Dispersion agents, both ammonia or sodium based salts, are able to work with different dispersing systems and chemistries. Rheology modifiers and dispersion agents are used in both dispersion based and liquid components of 2K Cementitious Systems.

Technical Solution Partnership Approach

Construction Solutions has dedicated synthesis and application laboratories within Organik Kimya's Research & Development Center. With state of the art equipment, Construction Solutions Laboratories are able to performe all application and analysis tests in accordance with the regional and international standards. Customer intimacy and solving customer needs is of utmost importance to Construction Solutions; therefore, joint projects and testing for customers at the laboratories are executed with much diligence.

Polymer Emulsions Application Areas

	2K Cementitious Waterproofing Mortars	Elastomeric Waterproofing Membranes	Roof Coatings	Sealants	Dispersion Based Tile Adhesives	Cement / Concrete Modifiers	Curing Membrane & Concrete Sealers	Smooth Surface Contact Primers
Orgal® Hydroflex 57	★★★★	★★		★★		★		
Orgal® K 640 N	★★★★	★★		★★		★		
Orgal® K 640 R	★★★★	★★		★★		★		
Orgal® K 635 N	★★★★	★★		★★		★		
Orgal® Tibonder D2				★	★★★★			★★
Orgal® Tibonder D2P				★	★★★★			★★
Orgal® PST 65		★★★★	★★★	★★★★				
Orgal® Rooflex S6		★★★★	★★★★	★★★★				★★★
Orgal® Rooflex 55		★★★★	★★★★	★★★★				
Orgal® Rooflex 35		★★★★	★★★★	★★				
Orgal® Roofxtreme 40		★★★★	★★★★	★★				
Orgal® P 803 CM	★					★★★★		
Orgal® P 900 CM	★★					★★★		
Orgal® 50 CM	★				★★	★★★★		★
Orgal® 100 CM	★				★★	★★★★		★
Orgaseal® C 655		★★★		★★★★				
Orgal® PST 5010		★★		★★★★	★		★	
Orgal® Multiflex S5		★★★★		★★★★	★★★		★	★★★★
Orgal® Betoprime S4		★		★			★★	★★★★
Orgal® P 056V		★		★★★★			★★	★★
Orgal® K 6987							★★★★	★★
Orgal® PR 667							★★★★	
Orgal® PR 670							★★★★	
Orgal® PST 50 A				★★★★	★★★		★	★★
Orgal® P 526				★★★★				

★★★★ Excellent ★★★ Very Good ★★ Good ★ Suitable

Redispersible Powders
Application Areas

	Tile Adhesives	Flexible Tile Adhesives	Tile Grouts	ETICS / EIFS Adhesives	ETICS / EIFS Base Coats	Decorative Renders & Plasters	Flooring Self-Leveling Mortars	Repair Mortars	Gypsum Based Plasters & Joint Fillers	Cementitious Waterproofing Mortars
ORP® 5060 MP	★★★★	★★★★	★★					★★★★		
ORP® 5077 MP	★★★★	★★★★	★★					★★★★		
ORP® 5070 MP	★★★★	★★★★	★★					★★★★		
ORP® 6072 MP	★★★★	★★★★	★★					★★★★		
ORP® 5090 MP	★★★★	★★		★★	★★	★★★			★★★★	
ORP® 5092 MP	★★★★	★				★			★★★★	
ORP® 7085 HM	★★★★	★★		★★	★★	★★★			★★★	
ORP® 7099 RD	★★★★	★		★	★	★	★		★★★	
ORP® Hydroflex 64			★★★★	★★	★★	★★★		★★★		★★★★
ORP® 7365 HP			★★★★	★★★★	★★★★	★★★★				★★★★
ORP® Thermobond 74	★★★	★★★		★★★★	★★★★					★★
ORP® Thermobond 65	★★★	★★★	★★	★★★★	★★★★	★		★★		★★
ORP® Thermobond 45				★★★★	★★★★					
ORP® 4064 FL							★★★★			
ORP® 7680 SL							★★★★			

Tiling Systems

Cementitious Tile Adhesives | Redispersible Powders

		Monomer Composition	Polymer Structure	Adhesion After Heat Aging	Adhesion After Water Immersion	Transverse Deformation
ORP®	5060 MP	VA / VV	Medium Hard	★★★★	★★★★	★★★★
ORP®	5077 MP	VA / VV	Medium Hard	★★★★	★★★★	★★★★
ORP®	5070 MP	VA / VV	Medium Hard	★★★★	★★★	★★★
ORP®	6072 MP	VA / VV / AC	Medium Hard	★★★★	★★★	★★★
ORP®	Thermobond 65	VA / VV / AC	Soft	★★	★★	★★★★
ORP®	5090 MP	VA / VV	Medium Hard	★★★	★★	★★
ORP®	5092 MP	VA / VV	Medium Hard	★★	★★	★
ORP®	7085 HM	VA / AC	Medium Hard	★★★	★★	★★
ORP®	7099 RD	VA / AC	Hard	★★	★★	★

Features & Benefits

Specifically designed powder polymers are able to provide high adhesion values by their hard and water resistant natures. They are also flexible due to their branched molecular structures.

Dispersion Based Tile Adhesives | Polymer Emulsions

		Monomer Composition	Solid Content (%±1)	pH	Viscosity (mPa.s, max)	MFFT (°C)	Tg (°C)
Orgal®	Tibonder D2P	S / AC	50	7.0 - 8.0	900	24	24
Orgal®	Tibonder D2	S / AC	50	7.5 - 9.0	1000	24	24
Orgal®	PST 50 A	S / AC	50	7.5 - 9.0	11000	20	20
Orgal®	PST 5010	S / AC	50	7.5 - 9.0	2000	11	11

		Adhesion After Heat Aging	Adhesion After Water Immersion	Workability
Orgal®	Tibonder D2P	★★★★	★★★★	★★★★
Orgal®	Tibonder D2	★★★★	★★★★	★★
Orgal®	PST 50 A	★★★	★	★★
Orgal®	PST 5010	★★	★	★★

Tile Grouts | Redispersible Powders

		Monomer Composition	Polymer Structure	Hydrophobicity	Abrasion Resistance	Flexural Strength
ORP®	Hydroflex 64	VA / VV / AC	Soft	★★★★	★★★★	★★★★
ORP®	7365 HP	VA / AC	Soft	★★★	★★★★	★★★

Features & Benefits

Hydrophobically modified powder polymers provide not only water repellency but also high water resistance for tile grouts.

Heat Insulation Systems

ETICS / EIFS Adhesives | Redispersible Powders

		Monomer Composition	Polymer Structure	Adhesion on Insulation Boards	Adhesion After Water Immersion
ORP®	Thermobond 74	VA / AC	Soft	★★★★	★★★
ORP®	Thermobond 65	VA / VV / AC	Soft	★★★	★★★
ORP®	Thermobond 45	VA / AC	Medium Hard	★★★	★★
ORP®	5090 MP	VA / VV	Medium Hard	★★	★★
ORP®	7085 HM	VA / AC	Medium Hard	★★	★★

Features & Benefits

Redispersible powder polymers offered for insulation board adhesives are able to adhere on both mineral surfaces (wall) and hydrophobic surfaces (insulation boards).

ETICS / EIFS Base Coats | Redispersible Powders

		Monomer Composition	Polymer Structure	Adhesion on Insulation Boards	Impact Resistance	Hydrophobicity
ORP®	7365 HP	VA / AC	Soft	★★★★	★★★★	★★★
ORP®	Thermobond 74	VA / AC	Soft	★★★★	★★★★	—
ORP®	Thermobond 65	VA / VV / AC	Soft	★★★	★★★	—
ORP®	Thermobond 45	VA / AC	Medium Hard	★★★	★★	—
ORP®	5090 MP	VA / VV	Medium Hard	★★	★★	—
ORP®	7085 HM	VA / AC	Medium Hard	★★	★★	—

Features & Benefits

ORP® Thermobond series of polymers provide water resistance, high adhesion on insulation boards and high impact resistance thanks to their soft/semi-soft and flexible molecular structures.

Waterproofing Solutions

Elastomeric Waterproofing

Membranes | Polymer Emulsions

	Monomer Composition	Solid Content (%±1)	pH	Viscosity (mPa.s, max)	MFFT (ºC)	Tg (ºC)
Orgal® Rooflex S6	S / AC	50	7.5 - 9.0	9000	0	-6
Orgal® Rooflex 55	S / AC	55	7.5 - 8.5	13000	0	-3
Orgal® Rooflex 35	AC	60	5.0 - 7.0	1300	0	-35
Orgal® Roofxtreme 40	AC	65	7.0 - 8.0	2000	0	-25
Orgal® PST 65	S / AC	50	7.5 - 9.0	13000	0	-3
Orgal® Multiflex S5	S / AC	50	7.0 - 8.0	1000	0	5

	Water Resistance	Flexibility	Flexibility at Low Temperatures	Adhesion	Dirt Pick-up Resistance
Orgal® Rooflex S6	★★★★	★★	★★	★★★★	★★★
Orgal® Rooflex 55	★★★	★★★	★★	★★★★	★★★
Orgal® Rooflex 35	★★	★★★★	★★★★	★★	★★★★
Orgal® Roofxtreme 40	★★★	★★★★	★★★★	★★★	★★★★
Orgal® PST 65	★★	★★★	★★	★★★	★★
Orgal® Multiflex S5	★★★	★★	★	★★★★	★★★

Roof Coatings | Polymer Emulsions

	Monomer Composition	Solid Content (%±1)	pH	Viscosity (mPa.s, max)	MFFT (ºC)	Tg (ºC)
Orgal® Roofxtreme 40	AC	65	7.0 - 8.0	2000	0	-25
Orgal® Rooflex 35	AC	60	5.0 - 7.0	1300	0	-35
Orgal® Rooflex S6	S / AC	50	7.5 - 9.0	9000	0	-6
Orgal® Rooflex 55	S / AC	55	7.5 - 8.5	13000	0	-3
Orgal® PST 65	S / AC	50	7.5 - 9.0	13000	0	-3

	Water Resistance	Flexibility	Flexibility at Low Temperatures	Dirt Pick-up Resistance	UV Resistance
Orgal® Roofxtreme 40	★★★	★★★★	★★★★	★★★★	★★★
Orgal® Rooflex 35	★★	★★★★	★★★★	★★★★	★★★
Orgal® Rooflex S6	★★★★	★★	★★	★★★	★★
Orgal® Rooflex 55	★★★	★★★	★★	★★★	★★
Orgal® PST 65	★★	★★★	★★	★★	★

Waterproofing Solutions

2K Waterproofing Mortars | Polymer Emulsions

	Monomer Composition	Solid Content (%±1)	pH	Viscosity (mPa.s, max)	MFFT (°C)	Tg (°C)
Orgal® Hydroflex 57	S / AC	57	7.0 - 9.0	1200	0	-10
Orgal® K 640 R	S / AC	57	7.0 - 9.0	1200	0	-10
Orgal® K 640 N	S / AC	57	7.0 - 9.0	1200	0	-10
Orgal® K 635 N	S / AC	53	6.0 - 8.0	1000	0	-23

	Water Resistance	Crack Bridging	Crack Bridging at Low Temperatures	Adhesion	Workability
Orgal® Hydroflex 57	★★★★	★★★	★★	★★★★	★★★★
Orgal® K 640 R	★★★★	★★★	★★	★★★★	★★★
Orgal® K 640 N	★★★★	★★★	★★	★★★★	★★★
Orgal® K 635 N	★★★	★★★★	★★★★	★★★	★★★

1K Cementitious Waterproofing Mortars | Redispersible Powders

	Monomer Composition	Polymer Structure	Water Resistance	Crack Bridging	Adhesion	Workability
ORP® Hydroflex 64	VA / VV / AC	Soft	★★★★	★★★	★★★★	★★★
ORP® 7365 HP	VA / AC	Soft	★★★	★★★★	★★★	★★★★

Features & Benefits
High water resistance and flexibility are the key features of recommended powder polymers for water insulation applications.

Flooring / Self-Leveling Mortars | Redispersible Powders

	Monomer Composition	Polymer Structure	Flow	Defoaming	Abrasion Resistance
ORP® 4064 FL	VA / AC / Other	Medium Hard	★★★	★★★★	★★★
ORP® 7680 SL	VA / AC	Hard	★★★	★★★★	★★

Features & Benefits

Rheologically modified powder polymers increase flow ability, sedimentation resistance and abrasion resistance.

2K Self-Leveling Mortars & Screeds | Polymer Emulsions

	Monomer Composition	Solid Content (%±1)	pH	Viscosity (mPa.s, max)	MFFT (°C)	Tg (°C)
Orgal® K 640 R	S / AC	57	7.0 - 9.0	1200	0	-10
Orgal® P 803 CM	AC	47	9.0 - 10.0	300	10	15
Orgal® 50 CM	S / AC	50	7.5 - 9.0	7000	18	18

	Flow	Defoaming	Abrasion Resistance
Orgal® K 640 R	★★	★	★★
Orgal® P 803 CM	★★	★★★	★★★★
Orgal® 50 CM	★	★★	★★★

Sealants | Polymer Emulsions

	Monomer Composition	Solid Content (%±1)	pH	Viscosity (mPa.s, max)	MFFT (°C)	Tg (°C)
Orgaseal® C 655	S / AC	55	7.5 - 8.5	13000	0	-3
Orgal® Multiflex S5	S / AC	50	7.0 - 8.0	1000	0	5
Orgal® PST 65	S / AC	50	7.5 - 9.0	13000	0	-3
Orgal® PST 5010	S / AC	50	7.5 - 9.0	2000	11	11
Orgal® PST 50 A	S / AC	50	7.5 - 9.0	11000	20	20
Orgal® K 640 R	S / AC	57	7.0 - 9.0	1200	0	-10
Orgal® P 056V	S / AC	50	8.0 - 9.0	3000	0	6
Orgal® P 526	VA / VV / AC	55	4.0 - 6.0	5000	11	25

	Water Resistance	Flexibility	Adhesion	Surface Properties
Orgaseal® C 655	★★★	★★★	★★★	★★
Orgal® Multiflex S5	★★★	★★	★★★★	★★★★
Orgal® PST 65	★★	★★★	★★★	★★
Orgal® PST 5010	★★★	★★	★★★	★★★
Orgal® PST 50 A	★★★	★	★★★★	★★★★
Orgal® K 640 R	★★	★★★★	★★	★
Orgal® P 056V	★★	★★	★★★	★★
Orgal® P 526	★	★	★★★★	★★★★

Cement / Concrete Modifiers | Polymer Emulsions

	Monomer Composition	Solid Content (%±1)	pH	Viscosity (mPa.s, max)	MFFT (°C)	Tg (°C)
Orgal® P 803 CM	AC	47	9.0 - 10.0	300	10	15
Orgal® 50 CM	S / AC	50	7.5 - 9.0	7000	18	18
Orgal® 100 CM	S / AC	50	7.25 - 9.0	4000	20	20
Orgal® P 900 CM	AC	47	9.0 - 10.0	300	5	6

	Water Resistance	Abrasion Resistance	Flexural Strength	Workability
Orgal® P 803 CM	★★★	★★★★	★★★	★★★
Orgal® 50 CM	★★★★	★★★	★★★★	★
Orgal® 100 CM	★★★★	★★★	★★★★	★★★
Orgal® P 900 CM	★★	★★	★★	★★★

Gypsum Based Plasters & Joint Fillers | Redispersible Powders

	Monomer Composition	Polymer Structure	Abrasion Resistance	Adhesion	Workability
ORP® 5090 MP	VA / VV	Medium Hard	★★★★	★★★★	★★★★
ORP® 5092 MP	VA / VV	Medium Hard	★★★★	★★★	★★★★
ORP® 7085 HM	VA / AC	Medium Hard	★★★	★★★★	★★
ORP® 7099 RD	VA / AC	Hard	★★	★★★	★★

Features & Benefits

Semi-hard and flexible polymers are more suitable for gypsum based applications. Better adhesion behaviour on different surfaces and joint tapes.

Curing Membranes & Concrete Sealers | Polymer Emulsions

	Monomer Composition	Solid Content (%±1)	pH	(mPa.s, max)	MFFT (°C)	Tg (°C)
Orgal® K 6987	AC	46	7.5 - 8.5	500	14	21
Orgal® PR 670	S / AC	30	7.0 - 8.0	100	0	8
Orgal® PR 667	S / AC	34	8.0 - 8.5	100	0	1

	Penetration	Abrasion Resistance	Water Resistance
Orgal® K 6987	★★	★★★★	★★★★
Orgal® PR 670	★★★	★★★	★★★
Orgal® PR 667	★★★	★★★	★★

Smooth Surface Contact Primers | Polymer Emulsions

	Monomer Composition	Solid Content (%±1)	pH	Viscosity (mPa.s, max)	MFFT (°C)	Tg (°C)
Orgal® Betoprime S4	S / AC	50	7.5 - 9.0	9500	0	-4
Orgal® Multiflex S5	S / AC	50	7.0 - 8.0	1000	0	5
Orgal® PST 50 A	S / AC	50	7.5 - 9.0	11000	20	20

	Adhesion on Concrete	Adhesion on Various Surfaces	Water Resistance	Workability
Orgal® Betoprime S4	★★★★	★★★★	★★★★	★★★
Orgal® Multiflex S5	★★★★	★★★★	★★★	★★
Orgal® PST 50 A	★★★★	★	★★	★★★

Dispersants & Thickeners

	Chemical Composition	Total Solids (%±1)	pH	Viscosity (mPa.s, max)
Dispersant DMA 40	Sodium Polycarboxylate	40	5.0 - 6.0	2000
Dispersant K 850	Sodium Polycarboxylate	30	9.0 - 10.0	350
Dispersant ASP 40	Ammonium Polycarboxylate	40	6.5 - 7.5	400
Orgal® M 340	ASE	30	2.0 - 4.0	n/a
Orgal® M 420	ASE	28	2.0 - 4.0	n/a
Orgal® HT 465	HASE	30	2.0 - 4.0	n/a

	Workability
Dispersant DMA 40	Low foaming polymeric dispersing agent
Dispersant ASP 40	Low foaming polymeric dispersing agent
Orgal® M 340	General purpose acrylic thickener with pseudoplastic profile
Orgal® M 420	General purpose acrylic thickener with pseudoplastic profile
Orgal® HT 465	General purpose hydrophobically modified acrylic thickener with pseudoplastic profile

Notes

Notes

Legend

S	Styrene	MFFT (°C)	Minimum Film Formation Temperature Styrene
AC	Acrylic	Tg (°C)	Glass Transition Temperature
VA	Vinyl - Acetate	Viscosity (mPa.s, max)	Brookfield Viscosity at 25 °C
VV	Vinyl - Versetate	Viscosity (mPa.s, max)	Brookfield Viscosity at 25 °C
ASE	Alkali Swellable Emulsion	n/a	Not Applicable
HASE	Hydrophobically Modified Alkali Swellable Emulsion		

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the chemistry between us

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