







V. 3





## **ADDITIVES FOR INKS AND COATINGS**

## Product guide











## RAW MATERIAL AND TECHNICAL SOLUTION PROVIDER

iGM Resins made the acquisition of ADD Additives in 2020.
ADD Additives BV started in 2010 and is rapidly expanding throughout Europe. ADD Additives manufactures and supplies an extensive range of high quality additives for industrial coatings, decorative paints, printing inks, adhesives, sealants, plastics and building materials.

# WE ENABLE THE TRANSFORMATION OF LIGHT FOR A We deliver what we say and actively engage in finding the optimal

To complement the already existing additives range, iGM Resins is investing resources into new developments. The new

developments and the technical service inquiries are carried out by our highly skilled staff. iGM Resins creates and nourishes solid and long term successful relationships with their partners by providing excellent customer service, customer support and supplying high quality materials.

Our extensive portfolio has allowed us to be a partner of choice for both multinational companies and small independent companies.

We deliver what we say and actively engage in finding the optimal solution for your business, creating top-notch customer satisfaction and profitability.

## **HOW TO GET MORE FROM US**

Our network of offices and distribution centers globally are established in all major energy curing markets to offer customerfocused and efficient supply. Our customer service is world class. Application and product development laboratories are available to provide customers with technical support and formulation advice.

Whatever your application, the iGM Resins technical service team is on hand to provide support with formulation challenges. If we don't have the right product, we can work with you to develop one.

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## **Binders for Pigment Concentrates**

## **Binders for Resin Minimal Pigment Concentrates**

The RMPC concept improves the manufacture of pigmented coatings or paints through the use of a highly pigmented, low resin content pigment concentrates. The concentrates can be formulated to be compatible with the majority of resins used to manufacture industrial coatings, while meeting the specific requirements of paint end-users.

Resin Minimal Pigment Concentrates (RMPC) based on ADD binders and high molecular weight dispersants off er the following advantages over conventional pigment concentrates:

- 1. Consistent colour development / no flocculation
- 2. Considerably lower resin content
- 3. Significantly lower viscosity

This leads to the following benefits:

- No flooding or floating
- Minimal effect on the quality of the finished product
- Application in a very wide range of different systems and solvents due to excellent compatibility of the pigment concentrates ADD-1000 range.

Description / Application Incorporation Active Content | % Solve to the content | % Solve to the

## **OMNIVADD 1000 RANGE - BINDERS FOR PIGMENT CONCENTRATES**

Omnivadd WP 1501	Fatty acid modified polymer, crosslinkable with amino or polyisocyanate resins	Before	100	•	
Omnivadd WP 1502	Fatty acid modified polymer, VOC free	Before	95		

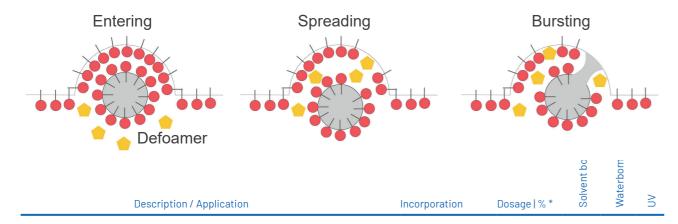
## **Foam Control Additives**

## Foam

During the production and application of paint systems, foam is an undesired side-effect of mixing. It is usually slowing production and making it difficult to fill vessels with the correct amount of paint. In addition it can cause surface defects such as craters and weak points in the dried film.

## Stable dispersion of gas bubbles in a liquid medium

The most general definition of foam is a substance that is formed by trapping many gas bubbles in a liquid or solid. A foam is normally an extremely complex system consisting of poly disperse gas bubbles separated by draining films. In other words foam can be described as a stable dispersion of gas bubbles in a liquid medium. In pure liquids, foam is not stable. Foam is only stable in systems containing surfactants.



## OMNIVADD 2000 RANGE - SILICONE-FREE FOAM CONTROL ADDITIVES

Omnivadd WD 2020 Acid-cure and NC-curtain coating systems, unsaturated polyester and gelcoats Before or after processing 0.1-0.7							
Omnivadd ED 2163       during the manufacture and application       after processing       0.1-1.0         Omnivadd WD 2504       Mineral oil-based high performance defoamer for aqueous formulations       Before and/or after processing       0.1-0.5         Omnivadd WD 2508       High performance liquid defoamer for aqueous formulations       Before and/or after processing       0.1-1.0         Omnivadd WD 2523       Defoamer for various water-based coating and water based ink systems       Before and/or after processing       0.1-1.0         Omnivadd WD 2548       Very effective silicone free high performance       Before and/or after processing	Omnivadd WD 2020			0.1-0.7	•		•
Omnivadd WD 2508  High performance liquid defoamer for aqueos formulations, especially for water-based food packaging inks and coatings  Omnivadd WD 2523  High performance liquid defoamer for aqueous formulations  Before processing  0.1–1.0  Omnivadd WD 2523  Defoamer for various water-based coating and water based ink systems  Omnivadd WD 2526  Defoamer for various water-based coating and water based ink systems  Omnivadd WD 2548  Very effective silicone free high performance  Before and/or after processing  0.1–1.0	Omnivadd ED 2163		201010 0110701	0.1-1.0			
Omnivadd WD 2508 formulations, especially for water-based food packaging inks and coatings  Omnivadd WD 2523 High performance liquid defoamer for aqueous formulations  Before and/or after processing  0.1-0.5  Omnivadd WD 2526 Defoamer for various water-based coating and water based ink systems  Omnivadd WD 2548 Very effective silicone free high performance  Before and/or after processing  0.1-1.0	Omnivadd WD 2504			0.1-0.5			
Omnivadd WD 2526 Defoamer for various water-based coating and water based ink systems  Omnivadd WD 2548 Very effective silicone free high performance Before and/or 0.1-1.0  Omnivadd WD 2548 Very effective silicone free high performance Before and/or 0.5-1.0	Omnivadd WD 2508	formulations, especially for water-based food	Before processing	0.1-1.0		•	
Omnivadd WD 2526 based ink systems after processing 0.1-1.0  Omnivadd WD 2548 Very effective silicone free high performance Before and/or 0.5-1.0	Omnivadd WD 2523			0.1-0.5			
UMNIVADO WU 2548	Omnivadd WD 2526	,		0.1-1.0		•	
	Omnivadd WD 2548	UMNIVADO WU 2548		0.5-1.0		•	

	Description / Application	Incorporation	Dosage %*	Solvent bo	Waterborn	3
Omnivadd WD 2720	Unsaturated polyester, epoxy and polyurethane systems	Before or after processing	0.1-1.0			•
Omnivadd WD 2721	Prevent foam and bubble formation during paint production, filling, and application	Before or after processing	0.5-1.0	•		•

## OMNIVADD-2000 RANGE - SILICONE-CONTAINING FOAM CONTROL ADDITIVES

Omnivadd WD 2025	Physically drying systems and air drying alkyds	Before or after processing	0.1-1.0	•		
Omnivadd WD 2026	Physically drying systems and air drying alkyds and especially for ink	Before or after processing	0.1-1.0	•		
Omnivadd WD 2040	Silicone defoamer for high gloss solvent-based systems	Before or after processing	0.1-0.7	•		
Omnivadd WD 2041	Solvent borne industrial and decorative finishes, including roller, brush and airless spray applications	Final production	0.1-0.7	•		
Omnivadd ED-2165	Silicone and polymer containing defoamer for solvent-borne and solvent-free coatings, adhesives and plastic systems	Before or after processing	0.5-2.0	•		
Omnivadd WD 2549	Rapid de-aeration of all kind of water based ink and coating formulations	Before processing	0.5-1.0		•	
Omnivadd WD 2560	VOC-free clear silicone-based defoamer which is particularly designed for water- and glycol-based pigment concentrates and universal colorants	Before or after processing	0.1-0.5		•	
Omnivadd WD 2561	VOC-free silicone-based defoamer for water- based coatings, printing inks, overprint varnishes and emulsion adhesives. Suitable for pigment concentrates	Before or after processing	0.05-0.8		•	
Omnivadd WD 2563	VOC-free all-purpose defoamer that is easy to incorporate in all kinds of water-based coatings, printing inks, overprint varnishes and emulsion adhesives	Before or after processing	0.2-1.0		•	
Omnivadd WD 2564	VOC-free clear defoamer that is easy to incorporate in all kinds of water-based coatings, printing inks, overprint varnishes and emulsion adhesives. Suitable for pigment concentrates	Before or after processing	0.1-1.0		•	
Omnivadd WD 2568	VOC-free clear defoamer that is easy to incorporate in all kinds of water-based coatings, printing inks, overprint varnishes and emulsion adhesives	Before or after processing	0.1-1.0		•	
Omnivadd WD 2722	Solvent-free epoxy and polyurethane systems	Before addition of pigments/fillers	0.5-1.5	•		
Omnivadd WD 2723	Solvent-free epoxy and polyurethane systems, low odour	Prior to processing	0.5-1.5	•		
Omnivadd VA S541E	Nonionic surface active agent, which provides both wetting and defoaming properties	Any stage	0.2-2.0			

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<sup>\*</sup> Dosages: % on total formulation

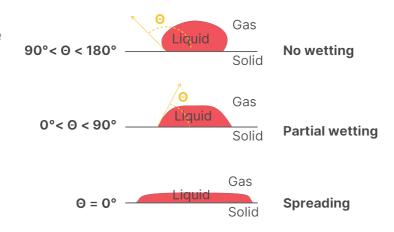
## **Slip & Levelling Additives**

## The surface of coating

Although the coating might be for different purposes; protective, decorative or both, it is the eye-catcher for its users and consumers. It is exposed to "the world" and has not only to withstand some severe circumstances like weathering, but is responsible for the appearance of the coating, colour, brightness, gloss and the "touch". It all starts at the surface. In most cases, superior surface properties cannot be achieved without the addition of slip & levelling additives which alter the surface properties of the coating.

Polysiloxanes have a very high surface activity and therefore are often used as surface control additives. Silicone-based surface control additives are modified by polyethers, polyesters or alkyl side groups to improve recoatability and inter-coat adhesion. Modification parameters are silicone content, molecular weight, and modification degree.

Polyacrylates, homo- and copolymers based on (meth)acrylic monomers are well known surface control additives. In addition to their positive impact on flow and levelling, acrylic homo-and co-polymers are effective as air-release agents. Since they are not reducing the surface tension of the coating to the extent of silicone-based products, the wetting of substrate surfaces is improved (substrate wetting).



Description / Application	Incorporation	Active Dosage   content % *   %	Solvent	Waterborn	N N
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### **OMNIVADD 3000 - SILICONE-FREE SLIP & LEVELLING ADDITIVES**

	Omnivadd WD 3052	Emulsifier in coatings, printing inks, adhesives and detergents	End of process	0.05-1.0	50			
IEW!	Omnivadd SF 3058	Anti-cratering and leveling additive, enhances shine and long wave effect for recoatability and interlayer adhesion	Any stage	0.1-1.0	52	•	•	
	Omnivadd WF 3070	Emulsifier in coatings, printing inks, adhesives and detergents	End of process	0.05-1.0	30			
	Omnivadd EF 3088	Provides 'long wave' levelling performance and increases gloss of the coating system	End of process	0.4-2.0	50			
IEW!	Omnivadd XF 3257	Good slip, gloss enhancement, pigment treatment and leveling	Prior to processing	0.01-0.5	100			•

		Description / Application	Incorporation	Dosage   % *	Active content  %	Solvent borne	Waterbor	<u>&gt;</u>
	Omnivadd XF 3260	Wetting, levelling and flow control agent with excellent anti-cratering properties	End of process	0.05-1.0	100			
NEW!	Omnivadd XF 3261	Enhances the leveling of coatings. Prevents shrinkage, ensuring superior finish and performance	Any stage	0.05- 0.5	100	•	•	
NEW!	Omnivadd XF 3541	Increases coating spreading ability, wetting & leveling performance. Offers excellent anti-shrinkage properties	Any stage	0.1-1.0	100	•		
NEW!	Omnivadd XF 3549	Reduces surface tension. Enhances coating spreading. Good anti-shrinkage performance	Any stage	0.1-1.0	100	•		
	Omnivadd XF 3572	Anionic substrate wetting agent	End of process	0.1-0.5	70		•	
	Omnivadd WF 3575	Excellent substrate wetting, levelling and anti-cratering	After or prior to processing	0.5-1.5	55		•	
NEW!	Omnivadd XF 3577	Reduces surface tension. Increases coating spreading, adhesion and substrate wettability	Any stage	0.1-1.0	100	•		
	Omnivadd XF 3772	Solvent borne or solvent free systems, coil coatings, OEM and industrial coatings	End of process	0.5-2.0	60	•	•	•
	Omnivadd SF 3777	Strong anti-cratering	End of process	0.5-1.0	70	•		•
	Omnivadd VA 3906	Polyethylene wax for anti-blocking and scratch resistance	Depending on system	0.5-2.0	100	•	•	

## **OMNIVADD 3000 - SILICONE-CONTAINING SLIP & LEVELLING ADDITIVES**

Omnivadd XF 3030	Improve slip and mar resistance, very compatible	Any stage	0.1-1.0	52	•	•	
Omnivadd XT 3031	Good substrate wetting of critical substrates, heat resistant silicone additive, slip,mar resistance	Any stage	0.1-1.0	52	•		•
Omnivadd XF 3033	Improve surface flow, excellent compatibility in clear coat wetting & anticratering	Any stage	0.1-1.0	15	•		
Omnivadd XF 3034	Strong substrate wetting and cratering	End of process	0.05- 0.5	52	•	•	
Omnivadd EF 3077	Unique wetting and spreading properties and can also improve flow and levelling properties	End of process	0.1-1.0	-	•	•	•
Omnivadd XF 3230	100% version of Omnivadd XF 3030	Any stage	0.05- 0.5	100	•	•	•
Omnivadd XF 3236	Solvent borne wood finishes, industrial coatings and solvents-free coatings	After thinning	0.02- 0.3	100	•		•
Omnivadd XF 3290	Premium additive that increases slip, surface smoothness and "soft-touch" effect	Any stage	0.05- 0.5	100	•	•	•
Omnivadd WF 3580	Anti-cratering and leveling agent for waterborne coatings	After or prior to processing	0.1-1.0	100		•	
Omnivadd WF 3581	Leveling agent for waterborne coatings with impregnating properties	Any stage	0.2-1.0	100		•	
Omnivadd WF 3585	Solution of Omnivadd WF 3580	After or prior to processing	0.2-2.0	52		•	

<sup>\*</sup> Dosages: % on total formulation

#### Description / Application

## Pigment stabilization by steric hindrance

When dispersing pigments, in particular organic pigments, one often encounters problems such as flocculation, insufficient colour or transparency, poor rheological behaviour or bad stability. These issues arise along every step of the coatings life cycle from production and storage through to the end-use performance of the film. The dispersing of solid pigments or fillers into the liquid phase of binder solutions is an important step in paint and coatings production influencing optical properties like gloss and colour strength. Dispersion control additives are used to improve and accelerate the dispersion process and to stabilize the dispersion during storage.

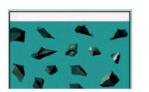
## High molecular weight wetting and dispersing agents

They are built of linear or branched polyacrylate or polyurethane structures with a molecular weight between 5,000 g/mol - 30,000 g/mol and have special groups which have high affinity towards specific sites on the pigment surface. These are called anchoring groups, and are built in at strategic points on the polymer backbone.

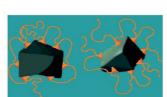
#### Mode of action

Anchoring groups enable strong interaction between the dispersion control additive and the pigment surface. This interaction is much stronger compared to the anchoring mechanism of the conventional low molecular weight types. Because these dispersion control additives have multiple adsorptions points, they are therefore connected to numerous sites on the surface of the pigment particles. The remaining parts of the dispersion control additive act as a steric barrier to the surroundings by stretching into the liquid phase and assuring an effective steric hindrance preventing flocculation.

Stabilizing







## OMNIVADD 4000 - HIGH MOLECULAR WEIGHT DISPERSANTS BASED ON BLOCK CO-POLYMER

Omnivadd EP 4029	VOC- and solvent-free high molecular weight wetting and dispersing additive	10	30-50	25-30	100	•	•	•
Omnivadd WP 4276*	Particularly recommended for carbon black pigments. Ideal for pigment concentrates for polyols and PVC plastisols and color masterbatches for thermoplastics	-	-	-	100	•		
Omnivadd WP 4519	Aqueous coating systems, printing inks and adhesives. Ideal for resin-free pigment concentrates	8-12	30-50	50-60	40		•	

## OMNIVADD 4000 - HIGH MOLECULAR WEIGHT DISPERSANTS BASED ON POLYURETHANE CHEMISTRY

Omnivadd- SP 4009	General-use industrial coatings where cost effective performance is vital	10	30-50	15-25	60		
Omnivadd XP 4010	General-use industrial coatings including coil coatings and decorative finishes	5-10	20-40	25-30	50	•	
Omnivadd XP 4046	General-use industrial coatings	10	30-50	15-25	40	•	
Omnivadd XP 4047	High quality industrial finishes including automotive OEM and refinish	10	30-50	15-25	35		•
Omnivadd SP 4061	Particularly suited for stabilizing carbon blacks with a fine particle size as well as organic pigments	10	30-50	15-25	30	•	
Omnivadd SP 4063	Solvent-based coatings, including automotive topcoats and high-quality industrial coatings. Ideal for pigment concentrates for high-end applications requiring durability	10	25-50	20-30	45		
Omnivadd XP 4100	High quality industrial finishes including automotive OEM, refinish, as well as universal solvent-based colorants	10	30-50	15-25	50	•	

High molecular weight dispersants based on polyacrylates

OA: Oil absortion value BET: Surface area value

DBP: Dibutyl Phtalate absorption value

<sup>\*</sup> Recommended addition levels (based upon pigment weight): 15-50% for carbon blacks, 10-25% for organic pigments and 5-10% for inorganic pigments

## **Dispersing Additives**

## Pigment stabilization by controlled flocculation

The dispersing of solid pigments or fillers into the liquid phase of binder solutions is an important step in paint and coatings production influencing optical properties like gloss and colour strength. Dispersion control additives are used to improve and accelerate the dispersion process and to stabilize the dispersion during storage.

## Low molecular weight wetting and dispersing agents

They are categorized according to their chemical structure and the nature of their hydrophilic groups (amphoteric, cationic, ... etc). The molecular weight is between 800 and approximately 2000 g/mol which is too low to give enough steric hindrance for stabilization of organic and carbon black pigments.

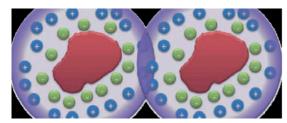
The interaction of their polar groups with the pigment surface and the behaviour of the non-polar chains in the medium determine their effectiveness.



## Non polar tail

## **Anchoring group**

### Mode of action



The polar heads will form hydrogen bonding interactions between different pigment units resulting in a network that enhances the separation of the particles (controlled flocculation). Inorganic pigments are usually metal oxides which contain positive metal ions and negative oxide

ions. These ions are good anchoring points on which the anchoring groups of the dispersion control additive can attach to (polar interactions).

Dosage based on inorganics pigments |%

Dosage based on Organics pigments |%

Dosage based on Bentonite |%

The state of t

## **OMNIVADD 5000 - RANGE LOW MOLECULAR WEIGHT DISPERSANTS**

Description / Application

Cost effective dispersant based on fatty acids for primers and under-coats	0.5-2.0		30-50	30	•	•	
Solvent borne industrial and marine coatings filled SMC & BMC	0.2-2.0	2.0-5.0	-	52	•		
All types of industrial coatings, composites, especially for inorganic pigments	1.0-10.0	-	-	50	•		
Solvent borne or solvent-free coating systems. Also for composites,SMC,BMC & bentonite gels	0.2-2.0	2.0-5.0	30-50	52	•		
Non-polar to medium-polar coating systems. Also for bentonite gels	0.2-2.0	2.0-5.0	30-50	52	•		
Polyurethane systems and stoving enamels. Also for orientation of aluminium pigments	0.5-2.5	-	-	52	•		
Polyurethane systems and stoving enamels. Strong anti-settling effect	0.5-2.5	-	-	52	•		
Water and solvent borne systems. Strong anti-settling effects. Bio-based Content (ASTM D6866-21): 53 %	0.5-2.0	2.5-5.0	-	52	•	•	
Recommended for architectural coatings to stabilize titanium dioxide, fillers and other organic and in organic pigments	3-5	5-8	8-10	90	•		
Improve the wetting of pigment surfaces and organically treated Bentonites	0.25-1.0	-	15.0-25.0	100	•	•	
Similar to Omnivadd XP 5065, but with different solvents combination	0.5-2.5	-	-	52	•		
Solvent borne architectural and decorative paints	0.5-5.0	2.0-5.0	-	100	•		•
Solvent borne, solventless coatings and printing inks. Excellent for Titanium Dioxide and extenders	0.5-5.0	-	-	100	•		•
Solvent-free version of Omnivadd SP 5044	0.1-1.0	1.0-2.5	15-25	100	•		•
Prevent flooding and floating and hard sedimentation. Bio-based Content (ASTM D6866-21): 84 %	0.25-1.25	-	-	100	•	•	
Solvent borne or solvent-free coating systems. Ideal for dispersing extenders in thermosetting resins	0.1-1.5	1.0-3.0	20-30	80	•		
	Solvent borne industrial and marine coatings filled SMC & BMC  All types of industrial coatings, composites, especially for inorganic pigments  Solvent borne or solvent-free coating systems. Also for composites, SMC,BMC & bentonite gels  Non-polar to medium-polar coating systems. Also for bentonite gels  Polyurethane systems and stoving enamels. Also for orientation of aluminium pigments  Polyurethane systems and stoving enamels. Strong anti-settling effect  Water and solvent borne systems. Strong anti-settling effects. Bio-based Content (ASTM D6866-21): 53 %  Recommended for architectural coatings to stabilize titanium dioxide, fillers and other organic and in organic pigments  Improve the wetting of pigment surfaces and organically treated Bentonites  Similar to Omnivadd XP 5065, but with different solvents combination  Solvent borne architectural and decorative paints  Solvent borne, solventless coatings and printing inks. 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Also for orientation of aluminium pigments  Polyurethane systems and stoving enamels. Strong anti-settling effect  Water and solvent borne systems. Strong anti-settling effect Content (ASTM D686-21): 83 %  Recommended for architectural coatings to stabilize titanium dioxide, fillers and other organic and in organic pigments  Solvent borne architectural and decorative paints  Solvent borne architectural and decorative paints  Solvent borne, solventless coatings and printing inks. Excellent for Titanium Dioxide and extenders  Solvent-free version of Omnivadd SP 5044  Prevent flooding and floating and hard sedimentation. Bio-based Content (ASTM D686-21): 84 %  Solvent borne or solvent-free coating systems. Ideal for dispersing extenders  Solvent borne or solvent-free coating systems. Ideal for dispersing extenders  O.25-1.05.07.07.07.07.07.07.07.07.07.07.07.07.07.	Solvent borne industrial and marine coatings filled SMC & BMC  All types of industrial coatings, composites, especially for inorganic pigments  Solvent borne or solvent-free coating systems. Also for composites, SMC, BMC  Non-polar to medium-polar coating systems. Also for bentonite gels  Non-polar to medium-polar coating systems. Also for bentonite gels  Non-polar to medium-polar coating systems. Also for bentonite gels  Non-polar to medium-polar coating systems. Also for bentonite gels  Non-polar to medium-polar coating systems. Also for bentonite gels  Non-polar to medium-polar coating systems. Also for orientation of aluminium pigments  Polyurethane systems and stoving enamels. Also for orientation of aluminium pigments  Polyurethane systems and stoving enamels. Strong anti-settling effect  Water and solvent borne systems. Strong anti-settling effects. Bio-based Content (ASTM D6866-21): 53 %  Recommended for architectural coatings to stabilize titanium dioxide, fillers and other organic and in organic pigments  Improve the wetting of pigment surfaces and organically treated Bentonites  Similar to Omnivadd XP 5065, but with different solvents combination  Solvent borne architectural and decorative paints  Solvent borne architectural and decorative paints  Solvent borne solventless coatings and printing inks. Excellent for Titanium Dioxide and extenders  Solvent-free version of Omnivadd SP 504  Prevent flooding and floating and hard sedimentation. Bio-based Content (ASTM D6866-21): 84 %  Solvent borne or solvent-free coating systems. Ideal for dispersing extenders  0.1-1.5 1.0-3.0 20-30 80	Solvent borne industrial and marine coatings filled SMC & BMC  All types of industrial coatings, composites, especially for inorganic pigments  Solvent borne or solvent-free coating systems. Also for composites, SMC, BMC & bentonite gels  Non-polar to medium-polar coating systems. Also for bentonite gels  Non-polar to medium-polar coating systems. Also for orientation of aluminium pigments  Polyurethane systems and stoving enamels. Also for orientation of aluminium pigments  Polyurethane systems and stoving enamels. Strong anti-settling effect  Water and solvent borne systems. Strong anti-settling effects. Bio-based Content (ASTM D8866-21): 53 %  Recommended for architectural coatings to stabilize titanium dioxide, fillers and other organic and in organic pigments  Improve the wetting of pigment surfaces and organically treated Bentonites  Similar to Omnivadd XP 5065, but with different solvents combination  Solvent borne architectural and decorative paints  Solvent borne, solventless coatings and printing inks. Excellent for Titanium Dioxide and extenders  Solvent-free version of Omnivadd SP 5044  Prevent flooding and floating and hard sedimentation. Bio-based Content (ASTM D8866-21): 84 %  Solvent borne or solvent-free coating systems. Ideal for dispersing extenders  O.5-1.0 1.0-2.5 15-25 100 100 1.0-2.5

## **Dispersing Additives**

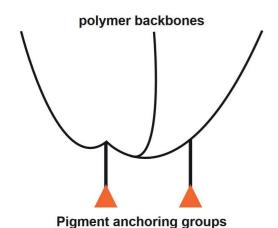
## Pigment stabilization by hybrid dispersants

Hybrid dispersant are modern low molecular weight dispersants. They contain anchoring mechanisms similar as in high molecular weight dispersants but have significant lower molecular weights varying between 1000 – 5000 g/mol. Due to the anchoring groups, multi adsorption is possible and therefore anchoring on organic- & carbon black pigments can be achieved. Compared to conventional low molecular weight dispersants the molecular weight of these hybrid dispersants are usually much higher which ensures more improved steric hindrance.

The active substance of hybrid dispersant is typically 100%. Because high molecular weight dispersants are usually having 30-60% activity, hybrid dispersants are very cost effective to use.

Unlike conventional low molecular weight dispersants, hybrid dispersants can be used for inorganic-, organic- and carbon black pigments.

## Example of a hybrid dispersant polymer with 'triple tail' technology.



Dosage based on inorganics pigments  %  Dosage based on Organics pigments   1  Dosage based on Bentonite   %	Active content %	Solvent borne	Waterborne	
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## OMNIVADD 6000 - RANGE MODERN LOW MOLECULAR WEIGHT DISPERSANTS

Description / Application

Omnivadd WP 6140	Solution of an ammonium salt of an acrylic polymer in water	0.5-2.0	-	-	44		•	
Omnivadd WP 6141	Especially suited for the dispersion of inorganic pigments.	0.5-2.0	-	-	44			
Omnivadd XP 6211	Acidic polyether, dispersant for solvent- based and solvent-free coatings and composite, is particularly suitable for car putties	0.5-2.0	-	-	100	•		
Omnivadd XP 6212	Acidic polyether, dispersant for solvent- based and solvent-free coatings and composite	5-10	-	-	100	•	•	
Omnivadd XP 6215	Anionic wetting agent to improve compatibility and color acceptance of all kinds of tinting pastes in both solvent and water-based systems, VOC-Free	3-10	10-20	15-25	100	•	•	
PureVadd 6220	Hybrid dispersant to improve compatibility and color acceptance of universal colorants in base paints. Bio-based Content (ASTM D6866-21): 55 %	5-10	10-20	15-25	100	•	•	
PureVadd 6225	Hybrid dispersant for universal colorants for tinting systems. Bio-based Content (ASTM D6866-21): 29 %	5-10	10-20	15-25	100	•	•	
PureVadd 6228	Hybrid dispersant for oil and solvent- based systems and colorants. Also for heatset and offset inks. Bio-based Content (ASTM D6866-21): 55 %	5-10	10-20	-	100	٠		
Omnivadd XP 6230	Aliphatic polyether with acidic groups	1-3	-	-	100	•		•
Omnivadd XP 6231	Aliphatic polyether with acidic groups especially for PVC plastisol purposes	1-3	-	-	100		•	•
PureVadd 6245	Hybrid dispersant for universal colorants for tinting systems, VOC- free and low viscosity pumpable dispersant. Bio-based Content (ASTM D6866-21): 29 %	5-10	10-20	15-25	100	•	•	
Omnivadd XP 6525	Hybrid dispersant stabilizing all kind of pigment and extenders in waterborne coatings, especially in decorative coatings	10-20	20-40	-	50		•	
Omnivadd XP 6540	Triple tail technology dispersant to improve stability of tinting pastes as well as dispersant for organic, inorganic and pearlescent pigments	0.5-2.0	2.5-5.0	-	62			

	Dosage	Active Content	olvent bo	/aterbori	>
Description / Application	%	%	S	$\geq$	5

## **OMNIVADD 7000 - RANGE MISCELLANEOUS**

Omnivadd SP 7023	Highly effective rheological control additive. For water-based adhesives or latex. Especially suited for adhesive systems	0.5-3.0	55		•	
Omnivadd VA 7500	Increased pigment loading in the mill-base or pigment concentrate	1.0-3.0	100	•	•	
Omnivadd VA N100	Derivative of a family of highly effective, low viscosity dispersing agent for water-borne coating systems	0.5-2.0	90			

<sup>\*</sup> Recommended addition levels are based upon pigment weight









Description / Application Product range

## **BIO-BASED ADDITIVES**

BIO-BASED A	DUITIVES					
PureVadd 5510	Low Molecular Weight Dispersants	Water and solvent borne systems. Strong antisettling effects.	53			
Pure Vadd 5266	Low Molecular Weight Dispersants	Prevent flooding and floating and hard sedimentation.	84		•	
PureVadd 6220	Modern Low Molecular Weight Dispersants	Hybrid dispersant to improve compatibility and color acceptance of universal colorants in base paints.	55	•		
Pure Vadd 6225	Modern Low Molecular Weight Dispersants	Hybrid dispersant for universal colorants for tinting systems.	29		•	
Pure Vadd 6228	Modern Low Molecular Weight Dispersants	Hybrid dispersant for oil and solvent- based systems and colorants. Also for heatset and offset inks.	55			
Pure Vadd 6245	Modern Low Molecular Weight Dispersants	Hybrid dispersant for universal colorants for tinting systems, VOC- free and low viscosity pumpable dispersant.	29		•	•

## **Contact information**

## IGM Resins in the world



IGM Resins is a fully integrated global supplier of Energy Curing intermediates. We have the capability to develop energy curing materials, customize them to meet your requirements or increase your productivity, and help you maximize their performance in your application.

Due to regional legislation, some of the products contained in the brochure are not available. Please visit our website or ask availability of the requested product to your commercial contact.

For IGM's global network of officially appointed agents, please visit our website www.igmresins.com



Our technical experience and flexibility to find the right solution for each of our customers – large or small – is a major factor in our industry leadership.

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