

High Solids Stabilised Slurries for Water-Based Adhesives



	KAOLIN	CALCIUM CARBONATE								CHALK
	PolWhite™ B	AquaCarb™ 402	AquaCarb™ 402G	Polcarb™ 90	Carbital™ 60	Carbital™ 75	Carbital™ 90	Carbital™ 95	Carbilux™	CH90L
Key	● Recommended ● Can be used									
Production Location	UK/BE	BE	TR	UK	SE/BE	SE/BE	SE/BE	SE/BE	BE	BE
APPLICATION										
Dextrine	●	●	●		●	●	●	●	●	●
Starch	●	●	●	●	●	●	●	●		
Polyvinyl Alcohol	●									
Polyvinyl Acetate		●	●	●	●	●	●	●	●	
Pressure Sensitive Adhesives	●									
Acrylates		●	●	●	●	●	●	●	●	
TYPICAL PROPERTIES										
Brightness (ISO R457)	82.5	94.5	94.0	88.5	95.0	95.0	95.0	94.5	95.5	82.0
+10µm (mass % max.)	15	1.06	18	0.5	1.0	1.5	1.0	0.5	0.1	-
- 2 µm (mass %)	45.0	37	37	88	63	75	90	-	-	90
d ₅₀ (µm)	2.0	3.2	2.9	-	1.5	1.1	0.8	0.5	0.45	-
Slurry Solids (mass %) -	75	72.5	75	78	78	78	78	75	70	70
Yellowness (max.)	5.2	1.5	2	4.2	1.5	1.5	1.5	1.5	1.5	-
Surface Area (BET; m ² /g)	2.6	3.6	-	-	7	9.3	10.7	15.9	16.7	-
+ 300 mesh (mass % max.)	0.05									
Specific Gravity (kg/m ³)	2.6									
pH	5									
Water Soluble Content (mass %)	0.15									
SiO ₂ (mass %)	47									
Al ₂ O ₃ (mass %)	37									

To find out more about our products and services for the Adhesives & Sealants industry visit

www.imerys-perfmins.com

Please Note: The properties quoted within this document are typical properties only and do not constitute a specification.

The data quoted are determined by the use of IMERY'S Minerals Ltd Standard Test Methods, copies of which will be supplied on request. Every precaution is taken to ensure the products conform to our published data, but since the products are based on naturally occurring raw materials, we reserve the right to change these data should it become necessary. Sales are in accordance with our 'Conditions of Sale', copies of which will be supplied on request.

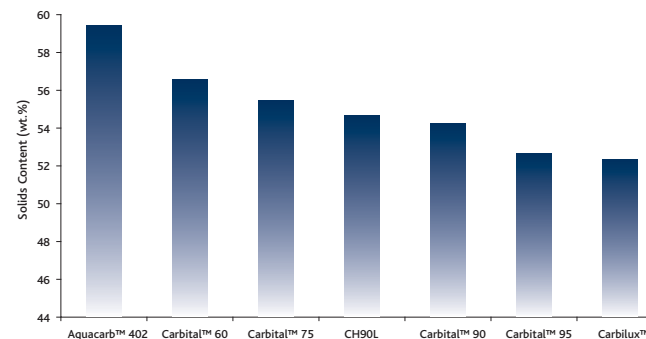
ADVANTAGES OF A BULK SLURRY PRODUCTION vs BULK POWDER PRODUCTION

- Reduces the dispersion costs and time for minerals into polymer dispersions.
- A slurry contributes to adding bio-stability to the final water-based adhesive formulation.
- Eliminates dust problems and allows in-line mixing.
- The initial CAPEX needed for a slurry production is lower as that of traditional powder production when producing water-based adhesives.



A real measurement of syneresis, an undesired effect in dextrin adhesive production.

SOLIDS CONTENT OF DEXTRIN ADHESIVES AT THE REQUIRED BROOKFIELD VISCOSITY (10 rpm, Sp 3, 350- 400 mPas, 25 °C)



Calcium carbonate occurs in the form of chalk, marble or limestone. Chalk is fine textured and varies in hardness and colour from deposit to deposit. Most often it is originated as the shells of microscopic sea organisms.

Marble deposits are limestones changed by crystallisation under conditions of extreme heat and pressure. In some cases, this natural process yields white marble of exceptional high brightness and purity, such as the famous deposits at Carrara, Italy.

Fine wet or dry ground calcium carbonate is used in a wide range of polymer applications to improve mechanical, rheological and optical properties. Some fine products are surface treated with a fatty acid coating to ease handling and improve dispersion. The coating also makes these fine products less susceptible to moisture pick up during storage and use.

IMERYS is a leading producer of high quality calcium carbonates powders and slurries and has numerous production sites throughout the world. Besides calcium carbonate slurries, Imerys also produces kaolin slurries and powders or blends of the above slurry products to create unique performances.

Kaolin Properties

Specific Gravity	2.6
Refractive index	1.56
Mohs hardness	2.5

Calcium Carbonate Properties

Specific Gravity	2.7
Refractive index	1.65/1.48 (birefringent)
Mohs hardness	3.0

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SLURRY

