Dispersing Agent DA27K

Product Description

DA27K is a 100% active APE-free content polymeric dispersant which improves pigment dispersion and stability in aqueous paints and inks.

Physical Properties

Appearance	Amber Liquid
Active Content	100 %
Color	＜8 (Garnder No.)
Density	1.13 g/cm3
Boiling Point	>100°C
Flash Point	>325°C

Applications

1) Waterbase Paint
2) Waterbase Ink
3) Universal Tinters

Advantages

Nonyl phenyl ethoxylate (NPE)-free / Alkylphenol ethoxylate (APE)-free
Increased pigment wetting and tinctorial properties
Improve performance of poor wetting resins
Produces highly pigmented concentrates making it ideal for mixing schemes
Excellent storage stability

Method of Use:

- DA27K must be added at the millbase or dispersion stage. It is recommended that the grinding medium for resin-containing dispersions should consist of a 10-30% resin solid solution.
- DA27K will reduce viscosity, the pigment concentration in the millbase may need to be increased to maintain adequate millbase viscosity / shear for efficient dispersion.
- Addition levels should be based on the surface area of the pigment / filler. The dosage level is usually 2mg active dispersant per square meter of pigment surface area (the pigment surface area divided by 5).

All the information above is based on data obtained at laboratory and is not to be used for certifying the suitability of the product. Users are advised to test the product in their own system before purchase.

Dispersing Agent DA27K

Order of Addition:

- Dissolve the DA27K dispersant in water.
- If required, add the synergist DA12K and stir evenly.
- Add defoamer (if necessary).
- Add resin (in the case of resin-containing dispersions)
- Add the pigment in stages and disperse in normal manner.

Packing & Storage

25KG HDPE Pails

200KG HDPE Drums

1000KG IBC

Shelf Life is 5 years

Heavy Metal Content

CONTENT	Sb	As	Ba	Cd	Cr	Pb	Hg	Se	Zn
ppm	<40	<15	<25	<40	<15	<20	<15	<15	<25

See Below for Guiding Formulations

All the information above is based on data obtained at laboratory and is not to be used for certifying the suitability of the product. Users are advised to test the product in their own system before purchase.

Dispersing Agent DA27K

Typical Formulations (Waterbased Packaging Inks)

The table below shows a range of typical resin-containing, acrylic solution formulations for waterbased concentrates.

Pigment CI #	% in Millbase					
	Pigment	24% NEOCRYL BT-26	Water	DMEA	**DA27K**	**DA12K**
PY13	40	24.99	32.45	0.14	2.42	--
PR57:1	30	28.16	39.26	0.18	2.40	--
PR184	40	23.65	33.00	0.14	3.21	--
PB15:3	40	23.00	32.42	0.14	4.00	0.44
PB15:4	40	27.93	27.92	0.15	4.00	--
PG7	50	18.75	26.14	0.11	5.00	--
PBL7	35	25.18	35.12	0.15	4.55	--
PW6	75	10.10	14.15	--	0.75	--

1. A 10% resin solid solution grinding medium was used in the formulations.
2. NEOCRYL BT-26 is supplied at 45% resin solids, hence the solution was diluted into 24% prior to use. See below for it's preparation.

1	Water	24.6
2	DMEA	1.9
	** Mix together than add*	
3	DEHYDRAN 1293 (Cognis)	0.5
4	Isopropanol	11.0
	** Stir the above then add to*	
5	45% NEOCRYL BT-26	62.0
		100

All the information above is based on data obtained at laboratory and is not to be used for certifying the suitability of the product. Users are advised to test the product in their own system before purchase.

Dispersing Agent DA27K

Typical Formulations (Universal Decorative Tinters & Waterbased Paints)

1. Resin Compatibility – DA27K based tinters have shown excellent universal compatibility in a wide range of water and solvent based paints:

Long Oil Alkyd	Mineral Spirit
Acrylic Emulsion	Water
Urethane Long Oil Alkyd	Mineral Spirit
Short Oil Alkyd Styrenated	Industrial Organic Solvents
Acrylic	Industrial Organic Solvents
Acrylic Resin Modified with Epoxy Ester	Water
Polyurethane Modified Alkyd	Industrial Organic Solvents
Styrene Acrylic	Water
Epoxy	Solvent
High Solids Polyurethane	Solvent

2. Below chart shows a range of typical starting formulations for ***Organic Based Universal Decorative Tinters.***

Pigment CI #	Pigment %	Talc	DA27K	Water	PG
PY74	35.00	10.00	2.40	26.30	26.30
PR112	22.50	10.00	1.44	33.03	33.03
PB15:3	25.00	15.00	6.00	27.00	27.00
PG7	35.00	10.00	6.75	24.12	24.12
PV23	25.00	15.00	7.26	25.38	25.38

*PG=Propylene Glycol

3. Below chart shows a range of typical ***RESIN CONTAINING*** formulations for water based concentrates using **Laropal LR8991**.

Pigment CI #	% in Millbase						
	Pigment %	Water	Defoamer 1	Defoamer 2	Laropal	Biocide	DA27K
PY74	45.0	10.80	0.3	0.2	41.80	0.10	1.80
PY42	50.0	25.47	0.3	0.2	21.43	0.10	2.50
PB15:3	27.5	14.23	0.3	0.2	54.37	0.10	3.30
PG7	35.0	11.83	0.3	0.2	45.57	0.10	7.00
PW6	73.0	12.74	0.3	0.2	10.01	0.10	3.65
PBL7	38.0	19.86	0.3	0.2	36.80	0.10	4.75

*Defoamer 1 (BYK019) *Defoamer 2 (BYK024) *Biocide (Proxel GXL)

All the information above is based on data obtained at laboratory and is not to be used for certifying the suitability of the product. Users are advised to test the product in their own system before purchase.

Dispersing Agent DA27K

4. Below chart shows a range of typical ***RESIN CONTAINING*** formulations for water based concentrates using **Laropal 9008**.

Pigment CI #	% in Millbase						
	Pigment %	Water	Defoamer 1	Defoamer 2	Laropal	Biocide	**DA27K**
PY74	45.0	14.60	0.3	0.2	38.00	0.10	1.80
PY42	50.0	27.40	0.3	0.2	19.50	0.10	2.50
PB15:3	27.5	19.17	0.3	0.2	49.43	0.10	3.30
PG7	35.0	15.97	0.3	0.2	41.43	0.10	7.00
PW6	73.0	14.75	0.3	0.2	8.00	0.10	3.65
PBL7	38.0	23.31	0.3	0.2	33.35	0.09	4.75

*Defoamer 1 (BYK019) *Defoamer 2 (BYK024) *Biocide (Proxel GXL)

5. Below chart shows a range of typical ***RESIN FREE*** formulations for water based concentrates.

Pigment CI #	% in Millbase						
	Pigment %	Water	Defoamer*	Humectant*	DMAMP80	**DA27K**	**DA12K**
PY74	48.0	38.56	1.00A	5.0	1.2	6.24	--
PY154	40.0	51.30	0.50B	5.0	1.2	2.00	--
PR122	32.0	53.90	0.30B	5.0	1.2	7.60	--
PR254	50.0	41.00	0.30B	5.0	1.2	2.50	--
PV23	40.0	46.14	0.20B	5.0	2.0	6.66	--
PB15:2	42.0	43.20	0.20B	5.0	1.2	8.40	--
PB15:4	30.0	57.70	0.70B	5.0	1.2	5.40	--
PG7	55.0	31.40	0.80B	5.0	1.2	6.60	--
PG36	52.0	38.38	0.30B	5.0	1.2	3.12	--
PBL7	45.0	46.00	0.10B	5.0	1.2	2.70	--
PBL7(2)	20.0	68.80	0.30B	5.00	1.5	12.80	1.60

*Defoamer A=Dehydran 1620; B=Rhodoline DF6681
*Humectant GRB2 or Propylene Glycol

All the information above is based on data obtained at laboratory and is not to be used for certifying the suitability of the product. Users are advised to test the product in their own system before purchase.