TECHNICAL DATA SHEET

CARCO CSP 1 (Deposit Control)
Bentonite Clay

PRODUCT BENEFITS

CARCO CSP 1 is a modified bentonite clay pigment which has a high affinity to sticky materials that agglomerate and create problems in papermaking. It can be used with or without polymers for control of wood pitch as well as stickies carried over from recycling operations. Benefits include:

- Coats pitch and stickies particles preventing agglomeration so that they can be carried out in the paper.
- Eliminates the need for alum addition in newsprint even with high pitch wood species such as radiata pine.
- Neutralizes “anionic trash” in papermaking systems to optimize the performance of other chemicals such as retention aids, sizing agents, dry strength additives, dyes, pigments and fillers
- Replaces expensive organic cationic coagulant polymers
- Eliminates foaming and the use of defoamers
- Performs over a wide pH range
- Keeps the overall system charge in balance
- Enhances solid/liquid separation in paper mill save-all and deinking plant effluent treatment applications
- Provides superior removal of ink fines, ash and dissolved solids from re-circulating gray water.
- Improves the uniformity of deinked pulp
- Decreases COD as well as BOD in the loop and the effluent
- Promotes higher plant throughput and runnability
- Two to five times as effective as talc on a pound for pound basis
- Improves the dewatering rate of sludge from deinking plant rejects
- Improves colloidal retention in closed water systems
- Enhances the performance of coagulants and flocculants used downstream in both micro and macrofloculation systems
- Improves drainage on pulp dewatering presses and paper machines
- Reduces the dosage of polymers used downstream on the paper machine.
- Stabilizes deinking plant operation and enhances paper machine runnability
- Improves overall mill efficiency
DESCRIPTION

CARCO CSP 1 has been developed for control of pitch and stickies in production of paper and paperboard. CARCO CSP 1 performs via a detackifying mechanism whereby the sticky materials are coated by the bentonite eliminating their tendency to agglomerate into larger, problem causing particles as they travel though the system. Performance may also be enhanced if polymers are present or used downstream since the bentonite has a synergistic effect with coagulants, and flocculants. Under shear, CARCO CSP 1 readily disperses in fresh water.

PRINCIPAL USES

CARCO CSP 1 when applied with or without polymers has found application pulping, wastepaper recycling and deinking operations for:

- Eliminating deposition and printability problems cause by wood pitch and “stickies”
- Enhancing retention and drainage on sludge presses
- Enhancing drainage on pulp dewatering presses
- Clarifying gray and white water loops

APPLICATION AND STORAGE

For this application CARCO CSP 1 should be added at a point far back in the system such as a point in the pulp mill or deinking plant. Common addition points for controlling pitch and stickies include pulp chest and mixed stock chest. The idea is to coat the tacky particles with bentonite before they have had a chance to agglomerate into larger particles that cause problems.

- Addition rates of 4- 6 pounds have been used to replace 20 pounds of talc
- Also enhances DAF clarification of gray water and white water in Newsprint, Magazine, Office Waste and Recycled paperboard mills and washer effluent in pulp mills

Recommended slurry concentrations:

Stock slurry: 5.0 - 7.0% max.
Feed slurry: 0.25 - 0.5% max.

Recommended storage periods:

Dry Bentonite: Indefinite
Stock slurry: Up to 3 months

CARCO CSP 1 dry bentonite should be stored in a cool, dry place. The pigment slurry should be stored between the temperatures of 45°F and 80°F to maintain stability.
TYPICAL PROPERTIES

Physical Form
G.E. Brightness
Wet Sieve Fineness
Moisture Content
pH of 2% solution
Specific gravity (6% susp)
Bulk Density
Fine white powder
65
≤ 0.1% retained on 44 micron
10%
10
1.03
Loose: 35 Lbs/ft³ Packed: 45 Lbs/ft³

PACKAGING

CARCO CSP 1 is supplied in 'Super-Sacks' of 1000 lbs (450 kg) and 2000 lbs (900 kg). Bulk shipments by tank truck and rail car are available for delivery of dry bentonite into silos. In cases of large volumes, CARCO CSP 1 is available in 25 kg paper bags.

HEALTH AND SAFETY

Detailed information on handling and any precautions to be observed in the use of these products can be found in the relevant Material Safety Data Sheet.

SPILLS AND DISPOSAL

Dry bentonite spills should be shoveled into a container with a WHMIS Workplace label and can be put into a landfill. Hose away residual dust or bentonite slurry spills. CAUTION: Slippery when wet.

CORROSIVITY

Corrosivity towards most standard materials of construction is low, but aluminum and galvanized equipment should be avoided. Stainless steel and reinforced plastic equipment is recommended.

NOTICE

The information in this leaflet is believed to be accurate and is intended for general guidance in the use of our products; it should not be construed as a guarantee of their suitability for a particular application.

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