

## INTRODUCTION

**KEMFLOC 5276** is a high molecular weight synthetic flocculant based on a co-polymer of acrylamide and sodium acrylate. It has been designed for solid-liquid separation in wastewater treatment, coal and iron ore beneficiation.

## PROPERTIES

|                             |  |
|-----------------------------|--|
| Appearance:                 | White crystalline powder                       |
| Chemical Composition:       | Polyacrylamide derivative                      |
| pH (0.5% solution):         | 6.5–8.5  |
| Ionic Character:            | Anionic  |
| Melting Point Range:        | Thermal composition can take place above 200°C |
| Boiling Point Range:        | NA   |
| Flash Point:                | NA   |
| Vapour Pressure:            | Negligible                                     |
| Viscosity (0.5 % solution): | >5000Cps, 4rpm @ 25°C,(spindle LV 1 S#62)      |
| Density:                    | 0.7 to 1.0 gm/cm <sup>3</sup>                  |

## AREAS OF APPLICATION

- ◆ As a flocculant for rapid setting of solids in iron ore separation, blast furnace wastewater TSS and COD reduction.
- ◆ To improve the sludge dewatering effect and sludge compaction.
- ◆ As a filter Aid for belt press application.
- ◆ Used as a settling and dewatering aid in textile, paper, food industries and refinery applications.

## METHOD OF APPLICATION

KEMFLOC 5276 is to be administered in small dosages ranging from 0.1-10 ppm. for settling application. And, 0.5-2 kg/ton of dry solid for sludge dewatering application.

## DISSOLVING KEMFLOC 5276 POWDER

Kemfloc is delivered in white crystalline powder form and needs to be dissolved in water before use.

This is done in three stages:

1. Wetting.
2. Dissolving to stock concentration.
3. Dilution to feed concentration.

The aim of wetting is to bring the individual solid Kemfloc particles into contact with the water. To ensure that this succeeds, it is best to employ suitable dispersion equipment, e.g. an automatic dissolving apparatus using the ejection principle. Should such equipment not be available, a dissolving funnel, or in a wetted state.

The vessel is then filled to achieve the proper stock solution concentration, i.e. 0.3 – 0.5% depending on the Kemfloc type. The time needed for the dissolving process is about 30-60 minutes at 100-150 rpm.

The stock solution is then diluted to a 0.05 - 0.1% feed solution.

## ADVANTAGES

Retention time is low.

Less quantity required than normal coagulants.

Energy consumption is less.

Treated water can be easily discharged or re-used for other applications.

## HANDLING

Use only in area provided with appropriate exhaust ventilation. Avoid dust formation. Use personal protective equipment.

## STORAGE

Keep tightly closed in a dry and cool place.

## SHELF LIFE

12 Months

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