

# MIKROFINE<sup>®</sup> - ADC

MIKROFINE<sup>®</sup>- ADC is a universally employed chemical blowing agent in powder form for the production of cellular plastics. Different grades of MIKROFINE<sup>®</sup> ADC are available in a range of particle sizes with a very close distribution in self-dispersible (2-series) and activated self-dispersible (5-series) grades.

## 1.1 PRODUCT INFORMATION

Main constituent	Azodicarbonamide. CAS Number [123-77-3] Mol. Formula C <sub>2</sub> H <sub>4</sub> N <sub>4</sub> O <sub>2</sub> Mol.wt. 116
Physical form	Pale yellow free flowing powder
Odour	Odourless.
Solubility	Insoluble in water and benzene Soluble in dimethylformamide
Health, safety & handling information	Relevant information can be found in sheet no. HPLA/SDS/M/CBA/01

## 1.2 SPECIFIED PROPERTIES

Decomposition temperature (°C) (Open capillary tube method)	
H5/L5/F5	191 ± 2
H2/L2/F2	200 ± 3
Volatility (%w/w)	0.5 max
pH (5% aqueous suspension at 25°C)	7.3 ± 0.5
Average particle diameter (microns)	
F2/F5	4.5 - 5.5
L2/L5	6.5 - 7.5
H2/H5	10 - 12
Gas contents (ml/gm of STP)	
H5/L5/F5	230 ± 5
H2/L2/F2	235 ± 5

### 3.1 SPECIAL FEATURES

MIKROFINE<sup>®</sup> ADC is completely dispersible. The products have a narrow particle size distribution for reliable performance.

MIKROFINE<sup>®</sup> ADC has been specially developed to produce white foams in PVC plastisol applications where it can be incorporated into PVC-plastisol as a dry powder during the normal mixing cycle. A pre-dispersion in a plasticiser is not needed. Setting problems experienced with most blowing agent - plasticiser dispersions are eliminated with MIKROFINE ADC grades.

MIKROFINE<sup>®</sup> ADC products are free flowing powders, which do not agglomerate. This makes these products ideal for metering in hopper blender units on extruders and injection moulding machines.

MIKROFINE<sup>®</sup> ADC products can be incorporated into rubber compounds at the end of the mixing process and disperses easily in all compounds (even with relatively low viscosity).

With MIKROFINE<sup>®</sup> ADC products vulcanisates with fine, uniform cell structure and smooth surface can be obtained and these products do not impart discolouration or odour to vulcanisates

### 4.1 APPLICATION

MIKROFINE<sup>®</sup> ADC is used in a wide variety of polymers for the production of foamed articles based on plasticised or unplasticized PVC, HDPE/LDPE, EVA co-polymers, natural & synthetic rubber, Polypropylene & ABS. It is specially suitable for PVC plastisol application where in it produces whiter foams with uniform & fine cell structure

MIKROFINE<sup>®</sup> ADC is a blowing agent for rubber compounds where it can be easily incorporated at the end of mixing process and results in even dispersion. With MIKROFINE<sup>®</sup> ADC vulcanisates with extremely fine uniform cell structure free from any discoloration or odor, can be obtained. Wall papers, artificial leather cloth, floor and wall coverings, thermo insulating materials, insulating sealant, carpet backing, cellular ceramic, door sealing strips, profiles, sheets, foot wear midsoles /insoles and automotive components are some of the application areas

### 5.1 DOSAGE

0.5 - 6.0 PHR, depending on the polymer used and the extent of expansion required

### 6.1 PACKING

MIKROFINE ADC grades are packed in 25kg HDPE bags / 25kg or 20kg UN approved corrugated cartons with a polythene liner inside or as per customer's requirement

The information given in this document is only a recommendation, believed to be reliable and is given in good faith but without warranty. Our advice does not release users from the obligation of checking its validity. The user should test the product to ascertain the suitability for the intended use. Specified properties mentioned in this document are based on our historical production performance and these properties or the whole document is subject to change without any prior notice, at our sole discretion. We are under no obligation to recall earlier issued documents

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