

**SIN RUBTECH® POLYMER BOUND
PREDISPERSED ADC – 75G**

Product Description

Composition:	A proprietary polymer bound predispersed 75% azodicarbonamide in a 25% elastomeric / processing aids binder specially formulated for use in EPDM, NR, SBR, BR formulations
Appearance:	Yellow Granules.
Density:	Approx. 1.43 g/cm ³ .
ML 1+4 @ 50°C	< 70
Moisture Content:	< 1.0 %
Decomposition Point: (of active ADC)	180 - 205 °C
Storage Stability:	At least 2 years under normal storage conditions away from heat sources.
Packing:	18 kg nett in sealed PE bag in a carton box.

Recommendations and Applications

ADC – 75G is suitable for all types of blown closed cell and expanded microcellular products except for blown open cell products. The decomposition temperature of the active ADC is about 210°C. However in the presence of zinc oxide + stearic acid, zinc stearate, glycols, basic accelerators, acidic fillers etc, the decomposition of ADC can start at 120°C – 140°C, hence ADC is often added in the 2nd step mixing or at the last 30” – 90” of the 1st step hot mixing. This is not often feasible as mix temperature may be too high or the normal dosage of ZnO and Stearic acid present in 1st Step masterbatch may cause premature decomposition of the ADC. For this reason our polymer bound ADC – 75G are ideally suited for fast mixing even on kneaders and 2-roll mills, with little or no risk of premature decomposition of the ADC. Our ZnO – 75G can advantageously be used and added together with our ADC – 75G.

ADC has the advantage over Dinitrosopentamethylenetetramine (DNPT) in that only predominantly nitrogen gas is liberated without the fishy odour of formaldehyde and toxic nitrosoamines. With gas liberation of active ADC at approximately 210ml/g, it is a very efficient blowing agent to use. (ADC – 75G gas liberation is approx. 157ml/g).

Due to the bright yellow colour of ADC, proper dispersion/ distribution and complete decomposition of ADC is recommended for white products where curing temperatures are below 170°C. For costing purposes, for every 1 kg of active ADC used in the final mix, only ~0.25kg of residue is left in the final blown product.

Dosage

Guidelines given below may need adjustments dependent on viscosity, cure rate etc.

	PHR ADC – 75G
For insulation closed cell sponge low densities: 0.10 – 0.20g/cm ³	> 20
For hard microcellulars ~ 0.9g/cm ³	2.5 – 4.0
For medium microcellular ~ 0.5g/cm ³	4.0 – 8.0

Handling Precautions

Most blowing agents in powder form require special handling. (See example, Bayer Manual For The Rubber Industry Item 9.2 Pages 503 – 504). Even with ADC – 75G, it is prudent to store these in their original cartons in a cool dry place away from possible heat sources or possible contamination with acid or bases. Open cartons of blowing agents must be removed from grinding or welding work-in-progress. With powder form grades of blowing agent, a spark from grinding or welding can cause a serious explosion.