

# TRIALLYL ISOCYANURATE AS A CROSS-LINKING AGENT



## Introduction

Triallyl isocyanurate (TAIC) is widely used as the cross-linking agent, modifier and assistant vulcanizer of thermoplastics, ion exchange resin and specially in rubber. TAIC having excellent heat resistance and chemical resistance. TAIC in extensive applications such as electronic materials, liquid crystals, semiconductors and solar cells. It is mainly used at epoxy resin potting and encapsulating materials.

## Applications

- 1 Triallyl isocyanurate is used as a crosslinking agent in the manufacture of synthetic rubbers, flame retardants, and agrochemicals.
- 2 TAIC is a crosslinking modifier to a variety of thermoplastic plastics such as LDPE, PVC, CPE, EVA,PS etc; TAIC is widely used to produce cables.
- 3 TAIC is an assistant vulcanizing agent for rubbers (ethylenepropylene rubber, fluorine rubbers, CPE etc.). Combination BIBP / DCP and TAIC will improve its vulcanization effect, become solid.
- 4 TAIC is a modifying agent for epoxy resin, DAP (Diammonium phosphate) etc., which can increase product's thermostability , adhesive property, mechanical strength, and dimensional stability.
- 5 TAIC is also a raw material for insulating use, it can be used to produce printed circuit board etc.

## Benefits

- 1 Excellent chemical resistance
- 2 High scratch resistance
- 3 High weather-resistance
- 4 Increased cure speed and improved transparency of EVA for solar cells.



## Specifications

Test	Specification	Test Method
Appearance	White powder	Visual
Ignition residue	< 30%	-

## Product FDA Status

It is not registered in food contact applications by US FDA.

## Some Known Formulations

### PERFLUOROELASTOMER COMPOUND

Ingredients	% Composition
Halogen free fr-triallyl isocyanurate	0 - 2.7
2,5-bis(t-butylperoxy)-2,5-dimethylhexane	0-1.0
Diatomaceous earth	0-10
Titanium dioxide	0-15
Barium sulfate (paint & coating)	0-8

Fumed silica / precipitated silica	0-2.0
Zinc oxide	0-5
Magnesium oxide	0-4
Calcium oxide / soda lime	0-1
Synthetic hydrotalcite (v)	0-1
Pae051 (50%)	0-27.8



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