



# **ODOR ABSORBER**

Odor Neutralization is a process that was discovered through the scientific study and atmospheric modeling of forest air.

Furthermore, scientists discovered that biogenic secretions interact with one another to produce a variety of results. For example, some biogenic secretions from living plants react with malodors emitted from the microbial digestion of decaying organics on the forest floor. Certain biogenic plant emissions were categorized as "Odor Neutralizers" for their ability to react with fugitive emissions to completely eliminate odor.

Odor Modifiers are odor control products designed to treat fugitive odors after they have been emitted into the air. There are two types of odor modifying technology

1) Odor Neutralization and 2) Odor Masking

Neutralization is completely different from Masking. Neutralizer reacts with malodors to reduce odor concentration, whereas masking overpowers one fragrance with another, increasing detectable odor.

For municipal and industrial applications, a successful odor neutralization plan involves both equipment and chemistry. A well-engineered odor neutralization system combined with the proper blend of odor modifiers will result in a significant reduction or complete elimination of detectable odor.



#### <u>PRAYAG POLYTECH (P) LTD</u>.

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# **ODOR ABSORBER** EXTRUSION APPLICATION

This masterbatch offers complete solution to avoid undesired odor in polymer, in virgin as well as in **recycled material**. The active ingredients consist of micro porous inorganic materials with a high capacity to absorb volatile organic compounds.

The odor absorber masterbatch reacts on a low molecular weight compounds, containing functional nitrogen (amino) and sulfur (mercapto) groups to neutralize odors without relying on chemicals. The fundamental mechanisms involved are adsorption, gas solubility and reaction. When diluted with water, the tiny water droplets are formed which contain a thin oil skin that creates an electrostatic charge. This charge facilitates adsorption of the malodor molecules onto the droplet surface. The gas is absorbed by the droplet (solubility) and held.

Odor neutralizing products feature a proprietary, natural and environmentally safe formulation. In a specific odor control applications **it is effective in removing detrimental polymer odors without the use of masking agents or fragrances.** They are available in additive formulations that neutralize odors connected with phenolic resins and many others.

Odor absorber masterbatch is compatible with PE, PP and EVA. It is effective in the adsorption of odors and other organic compounds including residual monomers, esters, vinyl acetate, organic acids, aldehydes and ketones.

Odor absorber masterbatch product allows standard resin processing temperatures



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## **ADVANTAGES:**

- 1. It is effective for both organic and inorganic odors.
- 2. It removes detrimental polymer odors without the use of masking agents or fragrances.
- 3. It is safe for the environment and it is also nontoxic.
- 4. It reduces the smelling components by 25 to 50%.
- 5. It improves odor of recycled material and provides a long lasting odor absorber effect.
- 6. No evaporation of active ingredients in to the ambient environment.

### **APPLICATIONS**:

Odor absorber masterbatch can be used in all types of plastics converting processes. The masterbatch should be mixed in the same way as other additives or colorants.

The products are suitable for use in a wide range of processes such as blown and cast film extrusion, injection molding, synthetic fiber production, extruded sheets, tubes and profiles.

### DOSAGE:

The recommended addition rate is between 3 - 6% or depends on the application.

### **SPECIFICATIONS:**

(1) Carrier resin - Polyethylene

PARAMETER	TEST METHOD	UNITS	LIMITS
Melt Flow Index (190°C/2.16 Kgs)	ASTM D 1238	Gm/10mint	186 -190
Specific Gravity (23°C)	ASTM D 792	g/cm3	0.93 -0.95
Moisture content	ASTM D 6980	%	0.1 - 0.2
Pellet size	mm	mm	2.5 - 3.0

**Packaging:** Odor absorber masterbatch is available in 25kgs bags which are PE liner inside and PP woven outer side. This is moisture proof packing Under Normal Conditions.

The above details are given to the best of our knowledge and experience but are only meant as suggestion without obligation.

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