

HYDROTALCITE K-D

APPLICATIONS:

- Heating Ability Additives: It improves stable growth of vegetables by providing heating effects on PE-FILM for agriculture. Its excellent transparency boosts the greenhouse effects during the day.
- Flame Retardant: It improves fire retardancy of resin.
- PVC Thermal Stabilizer: This nontoxic thermal stabilizer prevents deterioration of thermal resistance even when Zn content increases. The nontoxic PVC thermal stabilizer is effective for other interior materials such as fire-retardant cable, gasket of a refrigerator, automobile, etc.
- Halogen Capture: It can neutralize Zigler catalyst in PP, LLDPE, EPDM, etc. Its proper granularity does not cause any additional problem.

THE MAIN APPLICATIONS:

- Non toxic PVC thermal stabilizer
 1. High heat stability
 2. Good dispersion characteristics (mixing with PVC)
 3. Good initial color (whiteness)
 4. Good transparency

THE OTHERS APPLICATIONS:

- Flame Retardant
- PE-film
- Neutralize Zigler catalyst in PP, LLDPE, EPDM, etc

PROPERTIES:

Chemical Formula	Mg ₄ Al ₂ (OH) ₁₂ CO ₃ •mH ₂ O
Moisture Content (%)	0.5 max
MgO/Al ₂ O ₃ Mole Ratio	4.3 ± 0.2
Primary Particle mean Size (µm)	0.2 ~ 0.5
Particle Shape	Platelike
Specific Surface Area (m ² /g)	10 ~ 12
Bulk Density (g/cc)	0.2 ~ 0.4
Refraction Index	1.5
Heavy Metal Content (ppm)	10 max

PERFORMANCE TEST (FOR FLEXIBLE PVC):

Formulation: PVC:TOTM:CaCO₃:Stab = 100:48:40:8 phr
Rolling condition: 170 °C, 4 min

Oven discoloration (200°C)

Time(min)	Competitor A	Competitor B	Hydrotalcite K-D
0			
20			
40			
60			
80			
100			
120			

Congored (200°C)

Competitor A	Competitor B	Hydrotalcite K-D
205	200	200

VR (25°C, Ωcm)

Competitor A	Competitor B	Hydrotalcite K-D
2.3*10 ¹³	3.0*10 ¹³	2.8*10 ¹³

PERFORMANCE TEST (FOR HARD PVC):

Formulation: PVC:CaCO₃:Stab = 100:13:5.1 phr
Rolling condition: 170 °C, 2 min

Oven discoloration (190°C)

Time(min)	Competitor A	Competitor B	Hydrotalcite K-D
0			
20			
40			
60			
80			
100			
120			

Press stability (190°C)

Time(min)	Competitor A	Competitor B	Hydrotalcite K-D
0			
5			
15			
30			