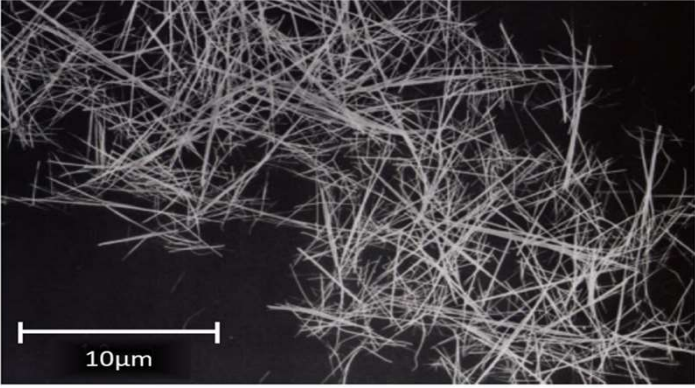


Fibrous Magnesium Oxysulfate

Features of MOS-HIGE® Part 1

MOS-HIGE® is Fibrous Magnesium Oxysulfate obtained by using magnesium hydroxide which is manufactured from sea water and sulfuric acid as raw materials. MOS-HIGE® is used to reinforce plastics. MOS-HIGE® achieves higher rigidity than other fillers. It helps reducing the weight of automobiles thanks to reducing amount of fillers and thickness of parts.

SEM Image



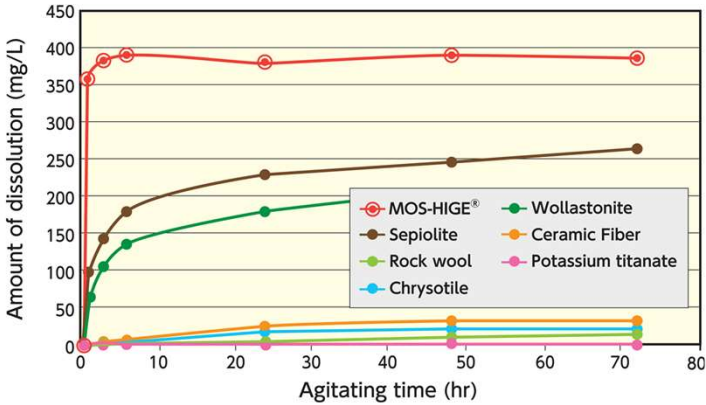
Average Fiber Length: 15 µm
Average Fiber Diameter: 0.5 µm

Properties

Chemical Formulation	$MgSO_4 \cdot 5Mg(OH)_2 \cdot 3H_2O$
True Specific Gravity	2.3
pH	9.5
Decomposition Temperature(°C) () =Decomposition Component	280~300 (3H ₂ O)
	380~400 (5H ₂ O)
	880~900 (SO ₃)

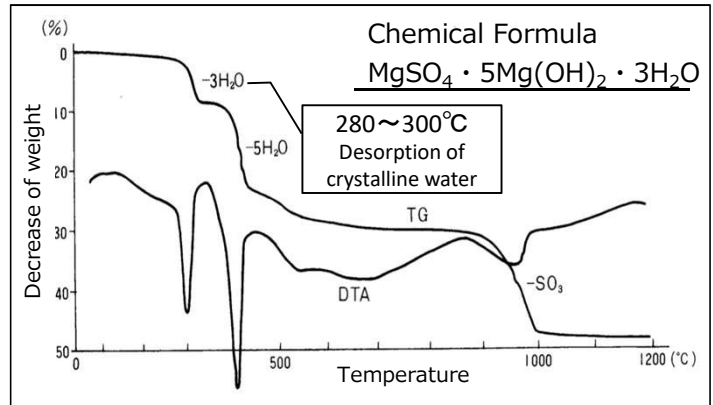
Registered REACH (EU) ,TSCA (USA)

Safe Data



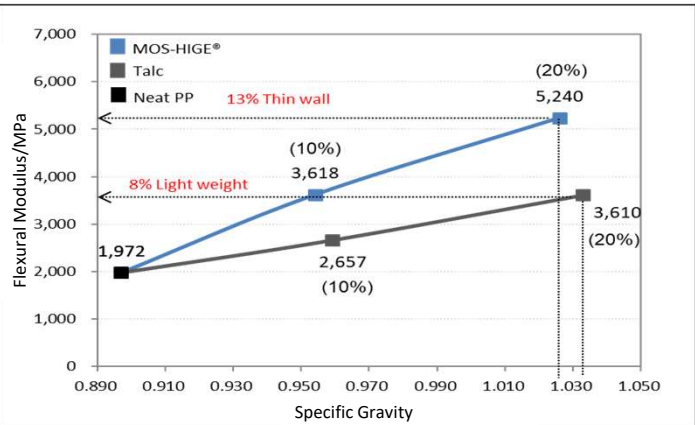
MOS-HIGE® is easily soluble in body fluid.
MOS-HIGE® is considered to be a very safe whisker.

Thermolysis Behavior (TG-DTA)



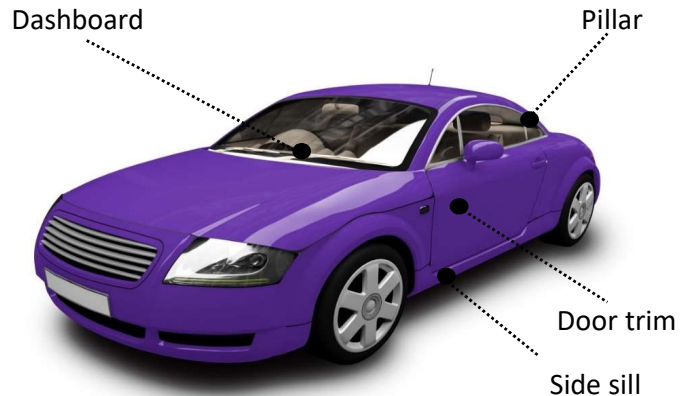
MOS-HIGE® is effective as flame retardant.
Compound material of MOS-HIGE® is easy of incineration treatment.

Performance to PP Compounds (Flexural Modulus)



MOS-HIGE® added PP has high rigidity and low specific gravity.

Application for Automotive Parts

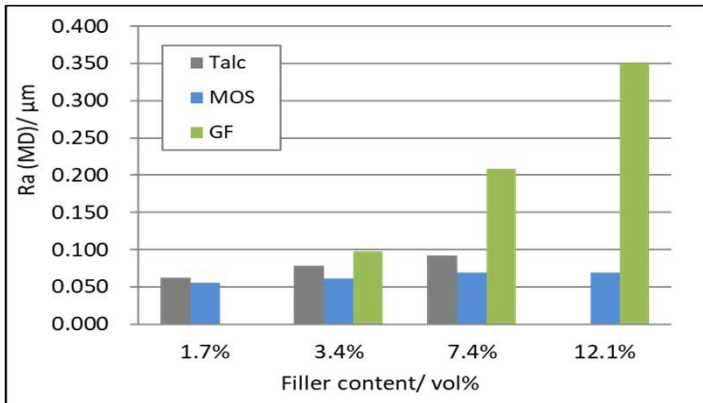


E.g. Use of MOS-HIGE® in automotive weight reduction

Fibrous Magnesium Oxysulfate

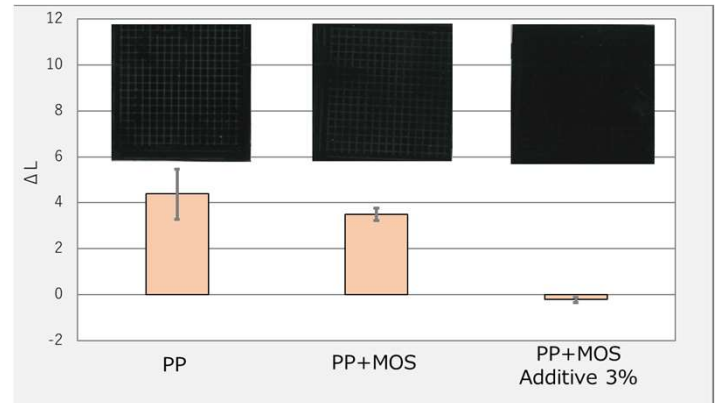
Features of MOS-HIGE® Part 2

Performance to PP (Surface Smoothness)



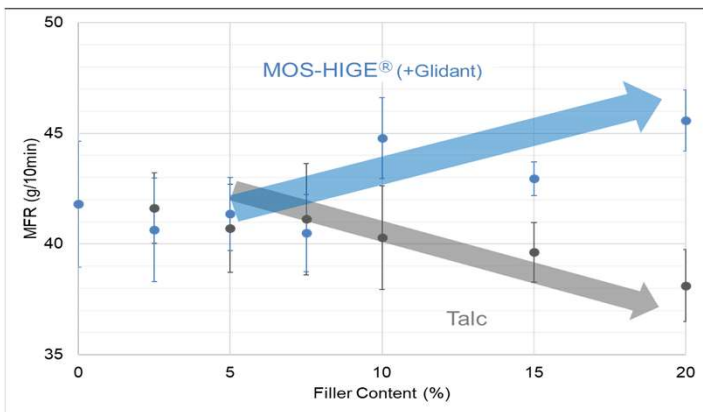
Good surface smoothness

Performance for PP (Scratch Resistance)



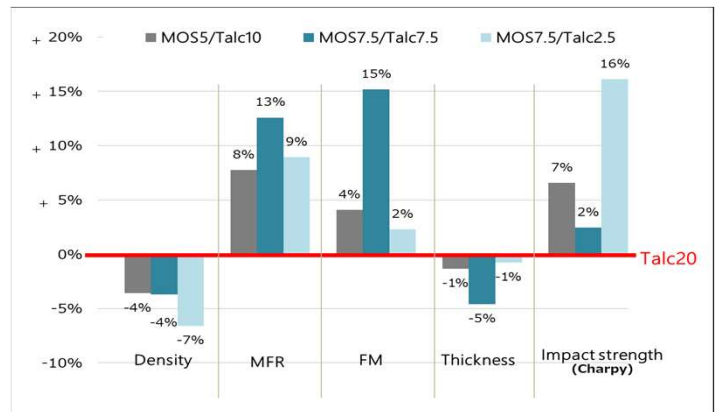
MOS contributed to improve the scratch resistance.

Performance to PP (MFR Improvement)



MOS-HIGE® helps MFR improvement

Performance for PP (Summary)



Replace a part of talc with MOS-HIGE®, it can improve physical properties of PP compounds.

Performance to PP (Foaming Molding)

Foaming Method	Blending Ratio		Specific Gravity	Flexural test (MPa)	
	PP	MOS		FS	FM
Chemical Foaming	100	-	0.718	26.9	1,100
	90	10	0.763	29.0	2,230
Physical Foaming (MuCell)	100	-	0.718	26.6	1,110
	90	10	0.763	30.3	2,500
None	90	10	0.954	41.2	2,800

There are improvements on both chemical and physical foaming molding.

Picture of MOS-HIGE®



MOS-HIGE® is granulated for good handling.

Data described in this catalog are representative figures obtained by measurement under specific conditions. Uses described in this catalog do not necessarily assure results of certain product applications. Information contained in this catalog is subject to change with or without notice.