



# HFFR

## Halogen Free Flame Retardant

PP Compound

# History

2015

## Hanwha Compound be founded

'Hanwha Compound' acquired and merged with 'Hanwha Next' changed the address of headquarters to Yeosu Plant

2018

## Won SPE(Society of Plastics Engineers) Award (Joint development with HYUNDAI)

Launched distribution of business with Hanwha Chemical

2021

## Established NDB Line Produced Eco-friendly materials

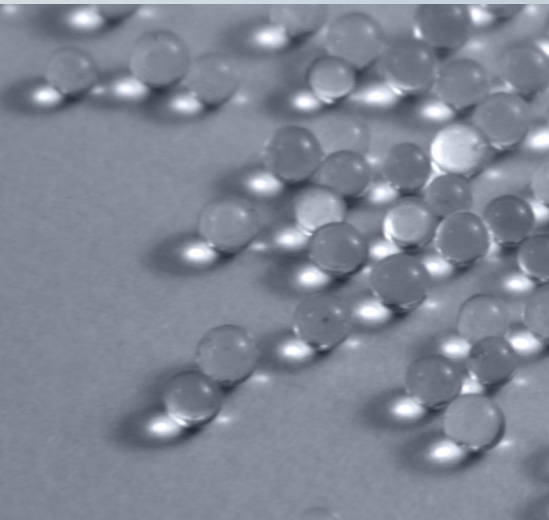
Singed MOU with SPC

## Established EP Line

2017

## Won IR52 JangYoungsil Award Established EP Line

2019



# Product

## HFFR



### Is Non-Halogen

- Polypropylene base with eco-friendly Flame Retardant
- Compared to conventional materials, HFFR holds a special trait of 30% low specific gravity



### Provides Competitive Price

- HFFR offers reasonable prices, up to a 20% in terms of cost reduction



### Is Proven

- HFFR meets the following international standards
- UL94 : 746A, 746B
- RoHS : 6 heavy metals materials are not detected Halogen materials(Br,Cl) are not included



### Is available for all colors

- All products are customizable

# TDS

## HFFR-1510

PROPERTIES	TEST METHOD	UNIT	TEST CONDITION	TYPICAL VALUE		
				NC	NT	CK
<b>PHYSICAL</b>						
SPECIFIC GRAVITY	ASTM D792	-	23°C	1.03		
MELT INDEX	ASTM D1238	g/10min	230°C, 2.16kg	17	10	7
<b>MECHANICAL</b>						
TENSILE STRENGTH(YIELD)	ASTM D638	kg/cm <sup>2</sup>	50mm/ min	240	200	150
FLEXURAL MODULUS	ASTM D790	kg/cm <sup>2</sup>	30mm/ min	32,000	23,000	15,000
<b>THERMAL</b>						
FLAMMABILITY	UL 94	CLASS	1.5mm	V-0		
<b>PROCESSING GUIDE(INJECTION MOLDING)</b>						
NOZZLE TEMPERATURE			°C	200-230		
MOLD TEMPERATURE			°C	40-60		
DRYING TEMPERATURE			°C	80		
DRYING TIME			hr	2-4		

# Application

## Home Appliance



- Rice Cooker PCB Case
- Fliter PCB Case
- Refrigerator PCB Case

## Automobile



- EV Socket
- FPCB Cover
- EV Battery Insulation Cover & Bottom

## Industrial Plastic



- Deco Sheet
- Pipe & Fitting
- Electricity meter box