

HELI™ HL-734 Opaque Acrylic Impact Modifier

Section one: Description

HELI™ opaque acrylic impact modifier HL-734 is a type of copolymer with core-shell structure, it shows excellent impact-strength and weather-resistance.

Section two: Product benefits

- Promote fusion
- Improve impact strength
- Improve weather-resistance

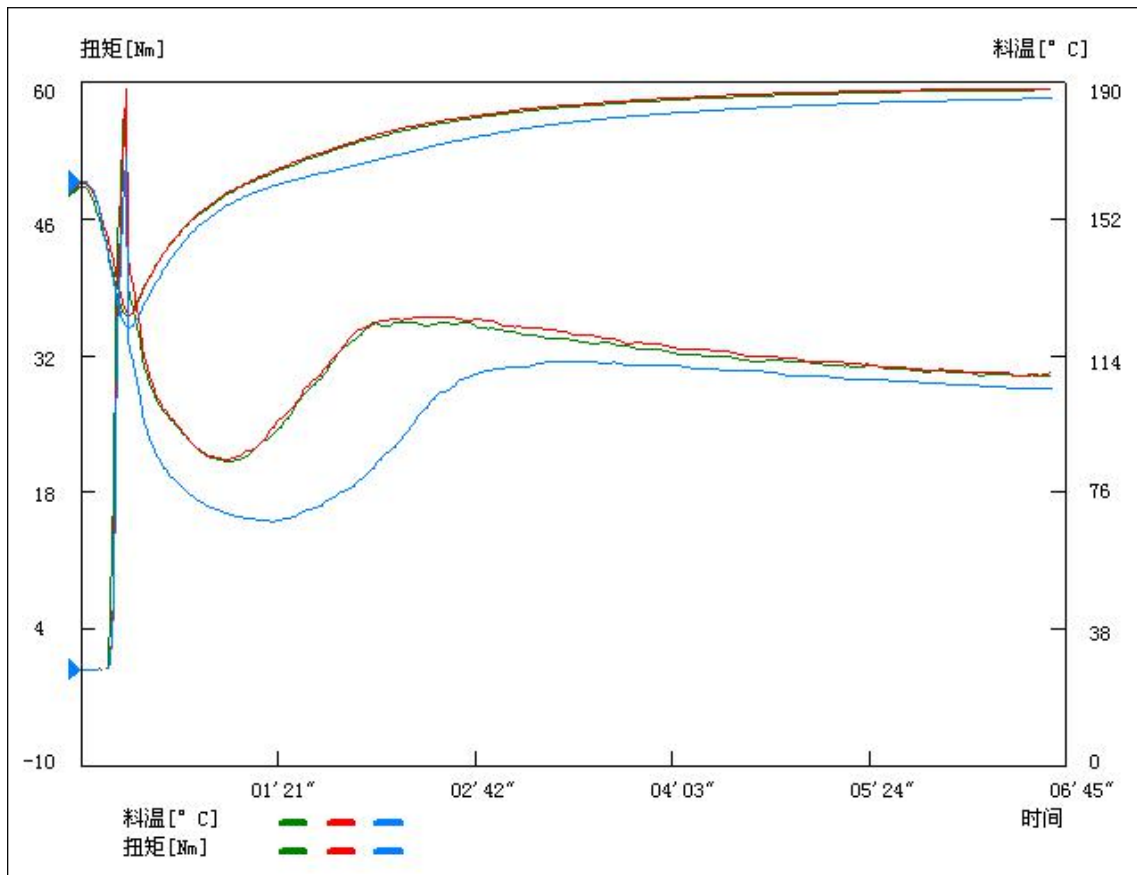
Section three: Technical specifications

Specification	Unit	Test standard	HL-734
Appearance	---	---	White powder
Bulk density	g/cm ³	GB/T 1636-2008	0.45±0.10
Sieve residue (30 mesh)	%	GB/T 2916	≤2.0
Volatile content	%	ASTM D5668	1.0±0.3
Glass transition temperature (Tg)	°C	GB/T 19466	-42.6±1.0

Section four: Properties comparison

● Fusion properties comparison

Test condition	160°C 60rpm
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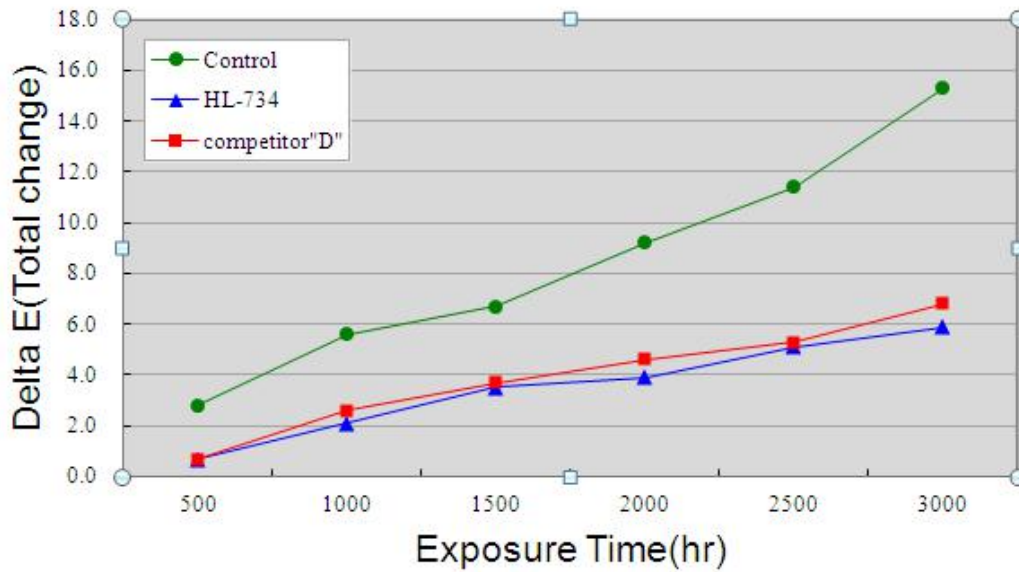
Type	Fusion data	Lowest torque (Nm)	Highest torque (Nm)	Equilibrium torque (Nm)	Fusion time (S)
0# control		15.0	30.7	28.5	195
1# HL-734		21.4	35.4	30.3	100
2# competitor "D"		21.4	35.4	30.3	100

●Mechanical properties comparison

Specification	Unit	Test standard	0#	1#	2#
			control	HL-734	competitor "D"
Charpy impact strength (0°C)	KJ/m ²	GB/T 1043.1-2008	7.2	11.4	11.2
Tensile strength	MPa	GB/T 1040-92	45.3	44.2	44.0
Elongation rate at break	%	GB/T 1040-92	88.5	144.9	137.5
Vicat softening point	°C	GB/T 1633-2000	79.8	81.7	81.9
Hardness (Shore A)	A	GB/T 2411-2008	84.7	84.3	84.5

●Weatherability

HL-734 can endow PVC finished products with good processability, at the same times show ideal weather-resistance .



Basic formulation for properties comparison

Ingredients	0#	1#	2#
	Control	HL-734	competitor "D"
PVC (K-65)	100.00	100.00	100.00
CaCO ₃ (PCC)	5.00	5.00	5.00
PE wax (110°C)	0.15	0.15	0.15
TiO ₂ (Rutile)	4.00	4.00	4.00
Stearic acid	0.20	0.20	0.20
Ca-Zn stabilizer	4.50	4.50	4.50
Processing aid HL-225	0.80	0.80	0.80
HL-734	--	5.00	--
competitor "D"	--	--	5.00

※ Remarks: The above data are from our lab tests for your reference.

Section five: Product application

HL-734 is mainly used to produce outdoor PVC applications, such as PVC window profile, PVC pipe and pipe fitting, PVC fence, PVC siding and decking, PVC panel and so on.

Section six: Packaging and storage

20kg/bag: PP valve bag with PE liner

500kg/sack: PP bag with PE liner

It should be stored in cool and dry surroundings with shelf life of two years, it can be still used if qualified by inspection after shelf life.

October 2007