

HELI™ HPA-20 Transparent Processing Aid

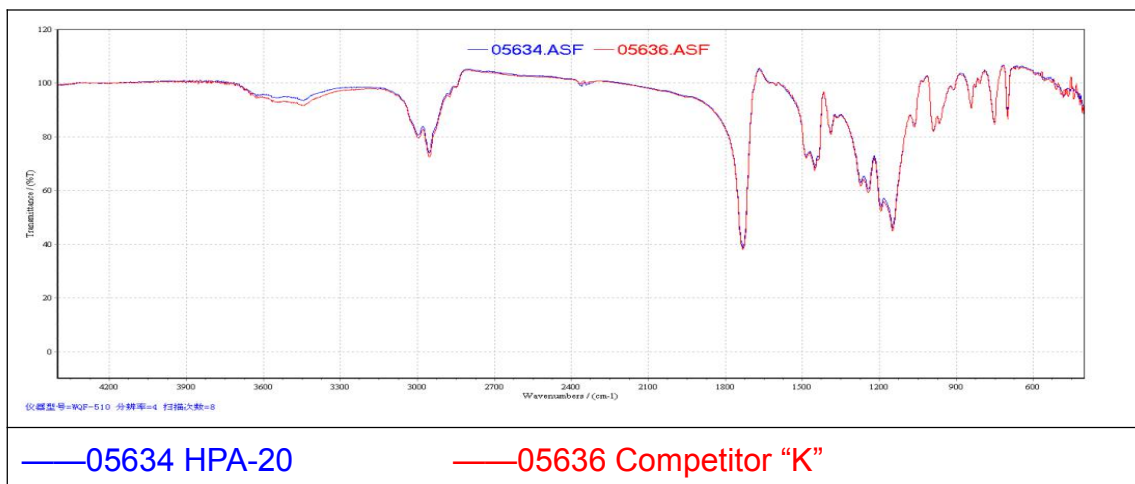
Section 1: Description

HPA-20 is mainly to promote fusion of PVC compound without affecting the optical property of PVC clear products. It can be used for all kinds of PVC products especially for PVC clear products, such as PVC clear film, sheet, bottle and so on.

Section 2: Product benefits

- Faster fusion
- Excellent transparency for PVC finished products
- Good surface gloss

Section 3: FTIR analysis



Section 4: Technical specifications

Specification	Unit	Test standard	HPA-20
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	≤1.30
Intrinsic viscosity (η)	--	GB/T 16321.1-2008	2.00±0.20

Section 5: Basic formulation for fusion test

Mixing equipment type: SHR-5A from Zhang Jiagang Beier Machinery Co., Ltd

Mixing condition: 50Hz, 110°C emptying

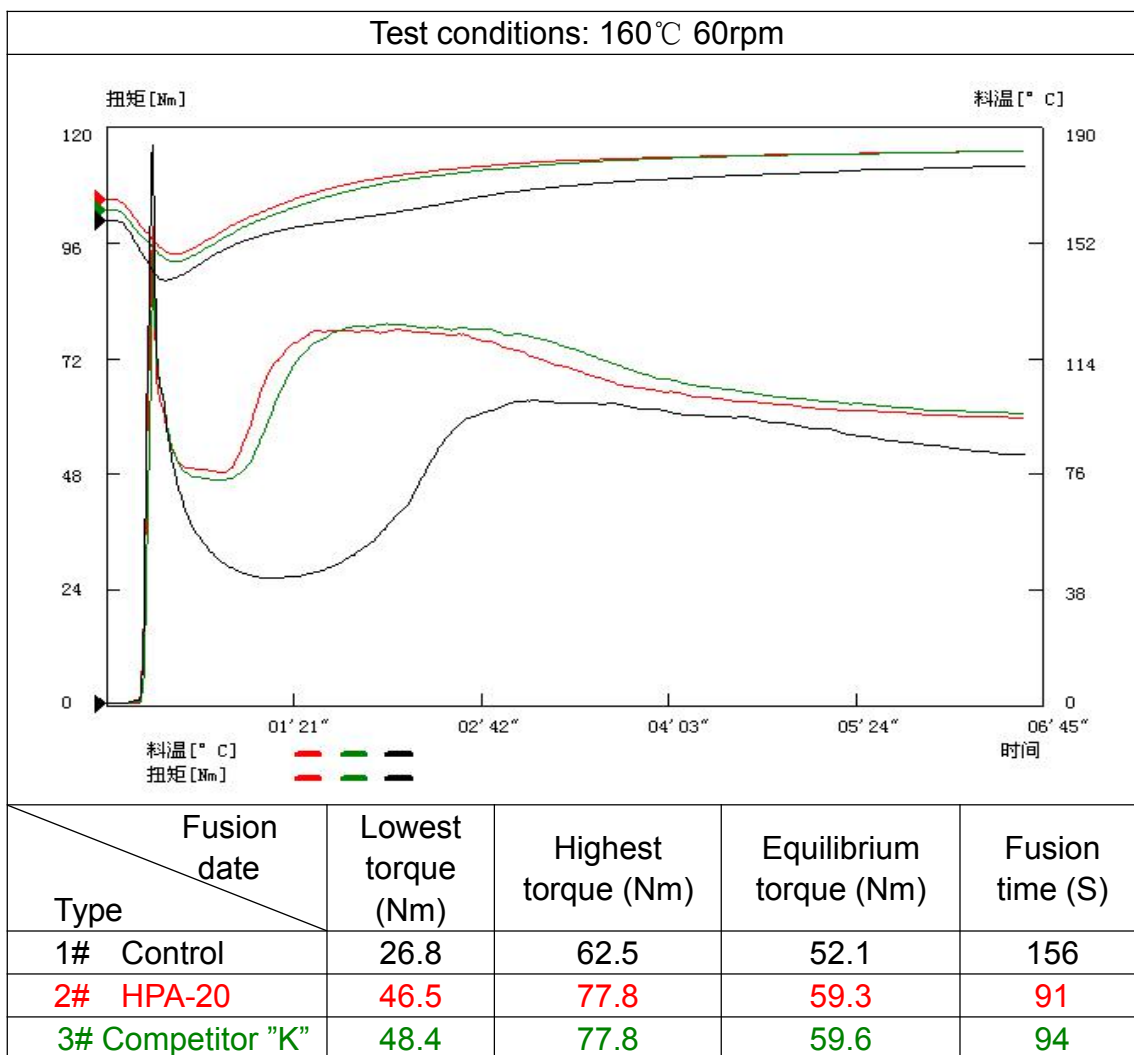
Volume: 5.0

Ingredients	1#	2#	3#
	Control	HPA-20	Competitor "D"
PVC (K-57) (1085)	100.00	100.00	100.00
Tin stabilizer (8507)	0.80	0.80	0.80
Int. lubricant HG-60	1.00	1.00	1.00
Ext. lubricant HG-74	0.50	0.50	0.50
MBS impact modifier RK-853	5.00	5.00	5.00
Transparent processing aid HPA-20	--	1.00	--
Transparent processing aid Competitor "K"	--	--	1.00

Section 6: Fusion property comparison

Test equipment type: RM-200C torque rheometer from Harbin Hapro Electrical technology Co., Ltd

Volume: 60ml



Section 7: Optical property

Transparency comparison (Test standard: ASTM-D1003-00)

Type	Specification	Transmittance (%)	Haze (%)
1#	Control	90.2	3.24
2#	HPA-20	89.1	5.95
3#	Competitor "K"	88.8	6.32

Section 8: Gloss comparison

Test condition: 45°

Type	Gloss of PVC extruded sheet
1# Control	11.3
2# HPA-20	34.5
3# Competitor "K"	33.9

Section 9: Product application

HPA-20 can be widely used for all kinds of PVC products especially for PVC clear products, such as PVC clear film, sheet, bottle and so on.

Section 10: 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.