



TECHNICAL DATA SHEET

TYPE: FN-50

● Product Description:

Acrylic impact modifier FN-50 developed by our company is acrylic copolymer with a core-shell structure, it is mainly used to improve the impact-strength and weather ability of PVC finished products with Hi-impact needs. It is recommended for applications such as PVC profile, PVC fencing and PVC siding etc. Where good outdoor weathering and low-temperature impact resistance are critical properties. FN-50 is our newest generation impact modifier, compared with other general impact modifier, our FN-50 has more better impact performance owing to higher rubber content and lower glass transition temperature.

● Products advantages:

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

● Technical specifications:

Specification	Unit	Test standard	FN-50
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	≤1.00
Glass transition temperature (Tg)	°C	GB/T 19466	-41.1±1.0

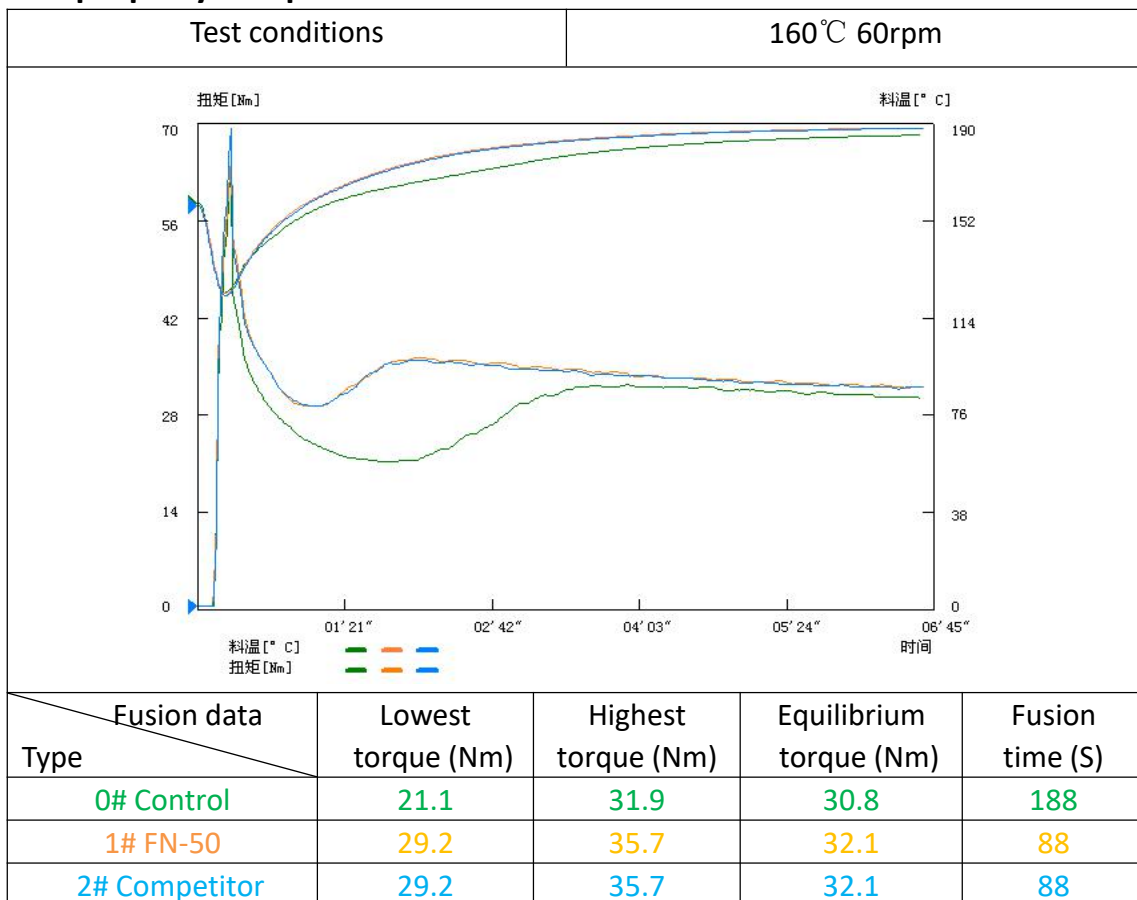
● **Basic formulation for following test:**

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

Mixing condition: 50Hz, 120°C emptying

Ingredients	0#	1#	2#
	Control	HL-708A	Competitor
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 ACR-100	0.80	0.80	0.80
FN-50	--	5.00	--
AIM competitor	--	--	5.00

● **Fusion property comparison**





● **Mechanical properties comparison:**

Test method:

1. Make plate with compound on double-roller mill under 185°C for 5min.
2. Then retain 6 min in curing press at 185°C
3. According to the following test standards and test conditions, prepare samples and obtain test results.

Specification	Unit	Test standard	0#	1#	2#
			Control	HL-708A	Competitor
Charpy impact strength (0°C)	KJ/m ²	GB/T 1043.1-2008	7.1±0.2	13.4±0.3	13.2±0.3
Tensile strength	MPa	GB/T 1040-92	45.3±0.4	42.0±0.2	42.2±0.3
Elongation rate at break	%	GB/T 1040-92	83.5±1.7	136.8±2.1	129.6±2.3
Vicat softening point	°C	GB/T 1633-2000	83.7±0.3	82.7±0.2	82.9±0.2
Hardness (Shore D)	--	GB/T 2411-2008	83.4±0.3	83.0±0.2	83.2±0.2

● **Packaging and storage:**

25kg/bag with PP valve bag and PE inner bag or 500kg/sack.

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