

TTK-3700E

PFAS-Free Polymer Processing Aid Masterbatch

Product overview. TTK-3700E is a PFAS-free polymer processing aid masterbatch based on an LDPE carrier. It is designed for polyolefin extrusion applications to improve melt processing, enhance surface quality, reduce die build-up and help eliminate sharkskin defects.

Key Benefits

Efficient Processing Helps reduce die build-up and eliminate sharkskin defects during extrusion.	Improved Surface Quality Supports smoother surfaces, improved melt flow and more stable processing.
PFAS-Free Formulation PFAS-free product formulation with declared RoHS and REACH compliance.	Lower Operating Burden Helps reduce equipment wear, cleaning frequency and maintenance costs.

Recommended Applications

Application	Typical Use and Benefit
PE Film	Blown-film and cast-film extrusion - improves melt flow and surface smoothness while helping reduce die build-up.
Pipe	Pipe extrusion - enhances forming performance and helps reduce die build-up.
Wire & Cable	Wire and cable extrusion - improves surface quality and processing stability.

Physical Properties

Property	Specification	Test Method
Appearance	Milky-white pellets	Visual inspection
Carrier resin	LDPE	-
Melt index (190°C / 2.16 kg)	5-10 g/10 min	ASTM D1238
Bulk density	0.45-0.55 g/cm3	ASTM D1895
Moisture content	< 500 ppm	Karl Fischer
Recommended dosage	0.5-5%	Process-dependent

Usage Instructions

- Pre-blend TTK-3700E with a compatible resin at the required ratio.
- Feed the blend directly into the extrusion process.
- Recommended dosage: 0.5-5%. Optimize according to resin type, equipment and processing conditions.
- Use the prepared blend within 24 hours for best performance.

Corona-Treatment Retention Test

Test conditions: TTK-3700E at 1% addition in PE film. Competitor product tested at 3%. Values are surface tension / corona-treatment level in mN/m.

Sample	Initial	Day 3	Day 7	Day 14	Day 21	Day 30
Competitor product (3%)	45	42	40	40	40	40
TTK-3700E (1%)	45	42	40	40	40	40

TEST OBSERVATION	Under the stated test conditions, TTK-3700E at 1% showed the same measured corona-retention profile as the competitor product at 3%.
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Quality Assurance, Packaging and Storage

Item	Description
Quality standard	Complies with Q/JN001-2024 Enterprise Standard
Storage conditions	Store in a cool, dry place. Protect from direct sunlight and rain.
Shelf life	12 months under the recommended storage conditions
Packaging	25 kg/bag, paper-plastic composite packaging
Transportation	Protect from moisture, contamination and mechanical damage.

Environmental Compliance Declaration

Regulation / Standard	Status	Remarks
RoHS 2.0 (EU) 2015/863	Compliant	Restriction of Hazardous Substances
REACH (EC) 1907/2006	Compliant	Registration, Evaluation, Authorisation and Restriction of Chemicals
PFAS	Compliant	PFAS-free formulation
SVHC	Compliant	No substances on the SVHC Candidate List declared

Safety Information

Industrial use only. The product is classified as non-hazardous in the supplied information. Use in a well-ventilated area. Avoid eye and skin contact, and wear protective gloves and safety goggles. If contact occurs, rinse immediately with plenty of water and seek medical attention. Not suitable for food-contact or medical-implant applications.

Technical data and recommended dosage should be verified under the customer's actual resin, equipment and processing conditions.