

KRITILEN®

Black Masterbatches for Drip Irrigation Pipes

3

354

A354

A445

A449

A44I3P

A4523P

Technical Information

Drip irrigation pipes and tubing is the most convenient, economical and popular way for effective water usage management ensuring increased crop yields. Irrigation systems can be installed above or under the ground and besides water can also convey agrochemicals and fertilizers to the plants. Typical diameters vary from 16mm-25mm while thicknesses vary from 150µm-500µm for tubing (tapes) or 0,5µm -1,3µm for round drip irrigation pipes. Drip irrigation pipes and tubing are operating under low pressures (0.5 - 4 bars).

With the appropriate selection of carrier resins and carbon black types, KRITILEN® BLACK masterbatches provide excellent weathering and heat resistance, smoother surface even at high production speeds and optimized mechanical properties to drip irrigation pipes, tubing and laterals.

Products and Applications

a) KRITILEN® BLACK 354

BLACK 354 contains 50% of a specially selected SRF carbon black, finely dispersed in LLDPE carrier. It also contains polymer processing aid (PPA) ensuring smooth surface finish at high production speeds. Its optimized rheological properties make it ideal for thin irrigation tapes (150-500µm)

b) KRITILEN® BLACK A354

BLACK A354 contains 50% of a specially selected SRF carbon black plus polymer processing aid and a substantial antioxidant package which makes it ideal for thin wall drip irrigation tapes and pipes when recycled materials are used.

c) KRITILEN® BLACK A445

BLACK A445 contains 40% of a small particle size carbon black together with antioxidants and processing aid. It can be used for thicker, round drip irrigation pipes ensuring superior weather resistance and mechanical properties.

d) KRITILEN® BLACK A4413P and KRITILEN® BLACK A4523P

BLACK A4413P and BLACK A4523P contain 40% and 45% P-type carbon black respectively together with antioxidants and processing aid. Their excellent dispersion and optimized rheological properties ensure trouble free production at high speeds and due to carbon black selection superior weathering performance.

e) KRITILEN® BLACK A449

BLACK A449 contains 40% of a small particle size carbon black together with antioxidants and processing aid in a selected olefin carrier. It can be used for thin wall drip irrigation tapes ensuring superior weather resistance and smooth surface finish at / higher extrusion speeds.

SELECTION TABLE
KRITILEN® Masterbatches for Drip Irrigation Pipes and Tubing / Product Range

KRITILEN® BLACK	Carrier	Carbon black type	Additives	Carbon black content (%)	Addition rate (%)	Applications		
						Thin wall Drip Irrigation tapes	Thin wall Drip Irrigation tapes (with recycled)	Thick wall Drip Irrigation pipes and laterals
354	LLDPE	SRF	PPA	50	5	•	0	0
A354	LLDPE	SRF	AO, PPA	50	5	•	•	0
A445	LLDPE	RCF	AO, PPA	40	6	0	0	•
A449	LLDPE	RCF	AO, PPA	40	6	•	•	•
A4413P	LLDPE	P	AO, PPA	40	6	•	•	•
A4523P	LLDPE	P	AO, PPA	45	5	•	•	•

• : recommended 0 : can be used

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The information and suggestions contained herein are the result of our experience, knowledge and research. They are believed to be reliable and are given in good faith. However, no warranty is provided, as the conditions under which our products are used are beyond our control.