Kaneka North America LLC
6161 Underwood Road
Pasadena, TX 77507

KANE ACE® FM-80

CLEAR ACRYLIC IMPACT MODIFIER

Product Description

Kane Ace® FM-80 is a high efficiency, all acrylic, core-shell polymer designed to improve the impact properties of rigid vinyl formulations.

General Benefits

Kane Ace® FM-80 provides good impact to both simple and complex part designs. Kane Ace® FM-80 is highly suited for clear outdoor and durable PVC based products.
Kane Ace® FM-80 has excellent free flow powder properties that contribute to improved processing, ease of handling, effective weighing and a less dusty work environment.

Typical Applications and Benefits

- Extruded Parts - Kane Ace® FM-80 promotes the development of clear compounds with good impact strength. Because of its high efficiency, effects on part strength and stiffness characteristics as well as processing and dimensional stability are minimal.
- Injection Molded Parts- Kane Ace® FM-80 combines efficiency and processability to enhance melt flow properties that result in superb quality and productivity.

Typical Physical Properties

Chemical Description: Acrylic Copolymer

Physical Form	White powder
Bulk Density	>= 0.45 g /cc
Volatile matter	<= 1.5 %
Particle Size	< = 1.0 % on 16 mesh sieve
Specific Gravity	1.0 – 1.3 g/cc

Performance

Izod Impact (ft-lbs/in)

Test Temp.	Dosage (phr)	FM-80	Competitor A
0ºC	4	0.15	0.25
	6	0.25	0.37
	8	0.37	0.51
	10	0.51	0.74
23ºC	4	0.61	0.68
	6	0.85	0.91
	8	1.28	1.41
	10	2.23	1.50

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Gardner Impacts (H-50 inches)

Test Temp.	Dosage (phr)	FM-80	Competitor A
23ºC	4	19.88	21.13
	6	20.50	20.32
	8	21.80	20.50
	10	22.70	21.38

Optical Properties

Item	Dosage (phr)	Transparency (%)	Haze (%)	L-value	A-value	B-Value
FM-80	4	77.3	8.8	79.3	-1.6	12.7
Competitor A		75.6	11.8	77.2	-1.1	11.4
FM-80	6	76.7	8.8	78.8	-1.7	12.0
Competitor A		76.7	11.4	77.5	-1.4	11.8
FM-80	8	73.4	11.2	76.8	-3.1	16.4
Competitor A		74.3	12.0	76.9	-2.5	15.5
FM-80	10	73.4	12.8	76.5	-3.3	15.4
Competitor A		73.8	12.0	76.9	-2.8	16.5

Formulation: PVC (kv-57), Sn Stabilizer, GMO, G-70S, PA-20, Modifier varied

STORAGE AND HANDLING PRACTICES

All employees who handle these products should be trained to handle them safely. Keep containers tightly closed when not in use. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Do not cause static spark; ground all equipment. Systems must be designed to safely handle and convey a material capable of causing a dust explosion.

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Do not store near high temperature, boilers, heaters, hot pipes, flames or oxidizing agents. Keep area ventilated. Since material can burn, consider limiting indoor storage to areas equipped with appropriate automatic sprinkler systems. Improper storage conditions may shorten the safe storage time. Since these products may degrade over time, and in order to avoid possible self-ignition, it is recommended that unused material be properly disposed of after 3 years. Do not store in direct sunlight. Material should be stored in secondary containers or in a diked area, as appropriate. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity of MSDS). Post warning and "NO SMOKING" signs in storage and use areas, as appropriate. Inspect all incoming containers before storage to ensure containers are properly labeled and not damaged.

Preparing Wastes For Disposal As supplied, these products do not meet the definition of a hazardous waste. Recover, reclaim or recycle the product, as appropriate. May be disposed of as a solid waste, sealed in an appropriate container.

If mixed with other chemicals, the person using these products must determine if the waste mixture meets the definition of any hazard class and dispose of in accordance with appropriate U.S. Federal, State, and local regulations, or the applicable standards of Canada and its Provinces, those of EU Member States and of Japan.

U.S. EPA WASTE NUMBER: Not applicable.

Product Packaging

Kane Ace® FM-40 is supplied in 50 lb. polymeric bags and 1000 lb. and 2000 lb. bulk bags.

Contact Information

Please call 1-(800) -526-3223 for additional information or specific recommendations for your intended application.