RC-721

MBS Core-Shell Impact Modifier for Engineering Plastics

TECHNICAL DATA SHEET TDS | Rev. 2026-10-02

Product Description

RC-721 is an MBS core-shell impact modifier developed for engineering plastic systems. Available technical data cover its use in polycarbonate (PC) and PC/ABS alloy formulations, with particular emphasis on room-temperature and low-temperature impact performance.

Typical Product Specification

Property	Specification	Batch Result*
Appearance	White powder	White powder
Volatile content	<= 0.5%	0.26%
Apparent density	0.20 - 0.70	0.33
Passing 20 mesh	>= 90%	99.2%

*Batch 260325, dated 2026-03-25, tested to Q/3700RFH 008-2023. Batch results are examples, not guaranteed values for every shipment.

PC Application Performance

Test formulation: PC-110 / Impact Modifier = 95 / 5

Property	RC-701	RC-721	RC-732
Izod impact, 23°C (J/m)	734	745	708
Izod impact, -30°C (J/m)	630	648	612
Tensile strength	66.1	66.9	63.8
Elongation at break (%)	117.7	122.9	122.5
Flexural strength	95.8	95.6	92.08
Flexural modulus	2449	2422	2485
HDT	118.4	118.2	116.9
Vicat	139.1	138.9	137.5
MFR	9.5	10.2	9.68

In this 95/5 PC formulation, RC-721 recorded Izod impact values of **745 J/m at 23°C** and **648 J/m at -30°C**. Results are specific to the stated formulation and test conditions.

A separate PC formulation (PC/MBS/PETS/1010 = 95/5/0.5/0.5) recorded: Izod 733 J/m at 23°C and 640 J/m at -30°C; tensile strength 64.5; elongation 124.6%; flexural strength 91.02; flexural modulus 2468; HDT 117.7; Vicat 138.5; MFR 9.85; gloss 105.

PC/ABS Application Performance

Test formulation: 85 / 10 / 4.5 / 0.3 / 0.2, as recorded in the source technical dataset.

Property	RC-701	RC-721	RC-732
Izod impact, 23°C (J/m)	679	678	652
Izod impact, -30°C (J/m)	542	534	522
Tensile strength	60.5	60.6	59.8
Elongation at break (%)	107.6	105.9	112.5
Flexural strength	97.1	98.8	96.4
Flexural modulus	2644	2696	2584
HDT	109.3	106.2	101.8
Vicat	134.1	133.6	133.2

Application test data are formulation-specific and are not universal guaranteed product properties.

Processing Reference

Process	Reference Conditions
Extrusion	260-270°C; die 270°C; 400 rpm
Injection molding	260-270°C; nozzle 280°C; mold 80°C

Starting reference conditions only; optimization may be required for individual resin grades, equipment and finished parts.

Thermal Data

TGA, 1% weight loss	266°C
TGA, 5% weight loss	365°C
Heat exposure record	200°C × 4 h: YI 5.21 → 31.07

Comparable Grade for Evaluation

Kaneka M-721 — RC-721 is a comparable grade for evaluation in applications where Kaneka M-721 is used. Qualification should be completed in the customer's own formulation, processing equipment and finished-part requirements.

This comparison is for product identification and evaluation only and does not imply affiliation, authorization, chemical identity, guaranteed equivalence or a drop-in replacement.

Packaging & Supply

Packaging	20 kg/bag; PE inner liner + PP woven outer bag
MOQ	1 MT
Sample	5 kg free sample; customer pays freight
Lead time	7-10 days after order, before shipment/loading
Main export port	Qingdao, China
Container reference	20GP: 14 MT / 700 bags; 40GP: 24 MT / 1,200 bags

Safety & Handling

The engineering-plastics MBS SDS describes the material as an MMA/butadiene/styrene copolymer (CAS 25053-09-2), white free-flowing powder and insoluble in water. Avoid dust inhalation and static accumulation. Store at temperatures not exceeding 45°C and away from ignition sources. Refer to the current SDS for complete information.

Disclaimer. This TDS summarizes currently available technical documents and application-test data for product evaluation. It does not constitute a specification warranty. Current batch COA, SDS and commercial terms should be confirmed for each order.

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