Food Containers

TPX™ food containers with excellent heat resistance, antifouling properties and transparency

TPX™ has good releasability, comparable to fluorine resins. It prevents the stains, colors and smells of food from remaining in a food container.
Further, it has excellent heat resistance and can withstand cooking oily food in a microwave oven.

Superior Characteristics of TPX™ Food Containers

Heat Resistance

TPX™ has a high melting point of 220°C to 240°C and is difficult to melt even when heated in a microwave oven for a long period of time compared to other materials.

Antifouling Properties

TPX™ features excellent releasability with low surface tension of 24 mN/m. It is highly resistant to stains, colors and smells, allowing products to maintain cleanliness.

Light Plastic

TPX™ is the lightest material (0.83 g/cm^3) among general plastics and helps to reduce product weight.

Safety

TPX™ is a BPA-free material and has obtained certification for food packaging materials in each country.

Transparency

TPX™ boasts transparency equivalent to glass and acrylic. (Haze <5%)

Case Studies

TPX™ is widely used in kitchen utensils in addition to food containers.

Rice Paddle

Cutting Board

Popcorn Maker

Mitsui Chemicals, Inc.

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Related Tests

1. Coloring Resistance Test

Test Conditions

❶ After putting meat sauce in a TPX™ container and a PP container, heat both. (5 cycles at 750 W for 1 minute)

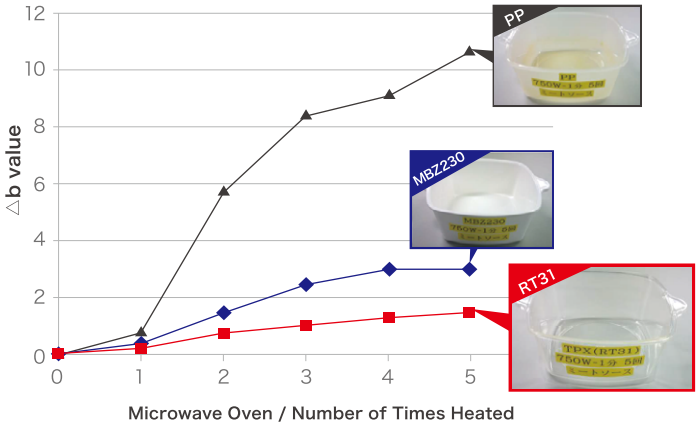
❷ After heating, wash the containers and measure the coloring property (b value).

Test Result

Compared to PP (polypropylene), a resin for general food containers, TPX™ shows good coloring resistance.

Used ingredient: Commercially prepared meat sauce

※△b value: Yellowing index



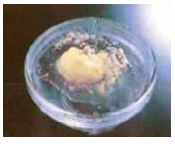
2. Heat Resistance Test

Heat Resistance Comparison	Melting Points
TPX™	220℃～240℃
PVDC	140℃
PE	110℃

TPX™ can withstand oily mayonnaise.

Before heating : Cover a glass container with wrap and place mayonnaise over it.

【Plastic Wrap A】After heating for 20 seconds: The wrap tore and the mayonnaise fell into the container.



【FOR wrap】After heating for 120 seconds : The mayonnaise melted but the wrap did not tear.

Note: With the corporation of RIKEN FABRO CORPORATION, FOR wrap (http://goods.jccu.coop)

Recommended Grades

High Rigidity ← → Low Rigidity

Properties	Test Method (Unit)	RT18 RT18XB	RT31 RT31XB	DX820	MX004	MX002O	MBZ230 (Opaque Grade)
MFR	Mitsui Chemicals Method(g/10min)	26	21	180	25	21	57
Melting Point	Mitsui Chemicals Method(℃)	232	232	232	228	224	233
Rockwell Hardness	ISO2039	80	78	94	59	38	73
IZod Impact Strength	ISO180 (J/m²)	7	6	6	14	NB	30

・XB Types are Blue Tint Grade.

・TPX™ can be used in a variety of forming methods, such as injection, extrusion and coating. Please contact us for details.