

**ISMAIL RESIN (PRIVATE) LIMITED** certifies that its Bottle Grade PET Resin IR-A84 meets the overall migration and specific migration restrictions set by Directive EU Regulation 10/2011 for food grade compliance.

**ISMAIL RESIN (PRIVATE) LIMITED** certifies that its product Bottle Grade PET resin IR- A84 complies with the Directive 94/62/EC and CONEG rules in United States which is regarding to heavy metals.

**ISMAIL RESIN (PRIVATE) LIMITED** certifies that its Bottle Grade PET Resin IR-A84 complies with requirements as specified by FDA code of Federal Regulation CFR 21 177.1630 (Polyethylene phthalate polymers).

ISMAIL RESIN (PRIVATE) LIMITED also certifies that our Bottle Grade PET Resin used in the Bottle-Grade packaging process has been certified Halal by the Pakistan Halal Authority. This certification signifies that our resin complies with all Islamic dietary and ethical requirements, ensuring peace of mind for our Muslim customers and partners.

ISMAIL RESIN (PRIVATE) LIMITED declares that our Bottle-Grade PET Resin complies with EU regulation 2023/2006 for GMP (Good Manufacturing Practices).

ISMAIL RESIN (PRIVATE) LIMITED declares that our Bottle Grade PET Resin is free of allergens mentioned here:

- Milk and its products
- Eggs and its products
- Tree nuts
- Sulphur dioxide
- Peanut and peanut products
- Wheat and its products
- Celery
- Gluten
- Crustaceans
- Lupin
- Molluscs
- Mustard
- Soya



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**ISMAIL RESIN PRIVATE LIMITED** is pleased to announce that its bottle-grade PET resin manufacturing facility has received the following International Certifications:

- √ ISO 9001:2015 for Quality Management Systems.
- √ ISO 14001:2015 for Environmental Management Systems.
- √ ISO 45001:2018 Standard for Occupational Health and Safety Management Systems
- ✓ FSSC 22000: Food Safety Management System
- √ Halal Certification

These certifications indicate Ismail Resin's dedication to supply high-quality, safe, and environmentally friendly products to its clients. They also emphasize the company's commitment to responsible production processes and following industry best practices. Ismail Resin's Bottle grade PET resin is utilized in a variety of food and beverage packaging applications, and these certifications provide clients with assurance that the goods are safe and satisfy the highest quality standards.

The testing methodology and results of overall migration, specific migration, determination of heavy metals and FDA extraction as per CFR 21 177.1630 mentioned below:



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## **Overall Migration:**

The overall migration of Bottle Grade PET Resin IR-A84 into simulants A, B, and D2 under the specified conditions is less than the limit of 10.0 mg/dm<sup>2</sup> as required by EU regulations.

While the results of overall migration of Ismail PET resin are mention below

Simulant	Overall Migration (mg/dm²)		
A (10% ethanol) at 40°C	0.1		
B (3% acetic acid) at 40°C	1.1		
D2 (olive oil) at 40°C	0.1		

## Specific Migration of Monoethylene glycol (MEG) and diethylene glycol (DEG):

The specific migration of MEG and DEG into simulants A, B, and D2 is less than the combined limit of 30 mg/kg of foodstuff as specified by EU Regulation No. 10/2011.

Specific migration of ethylene glycol (MEG) and diethylene glycol (DEG) into the following food simulants (mg/kg)

Bottle Grade PET Resin IR- A84	MEG+DEG	Simulant A	Simulant B	Simulant D2
Results		<5.4	<5.4	<3.6



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## Specific Migration Terephthalic acid (TPA) and isophthalic acid (IPA):

The specific migration of TPA and IPA into simulants A, B, and D2 is less than the individual limits of 7.5 mg/kg of foodstuff for TPA and 5 mg/kg of foodstuff for IPA as specified by EU Regulation No. 10/2011.

Specific migration of terephthalic acid and isophthalic acid into the following food simulants (mg/kg of food simulant)

Bottle Grade PET Resin IR- A84		Simulant A	Simulant B	Simulant D2
Results	Terephthalic acid	<0.5	<0.5	<0.5
Results	Isophthalic acid	<0.5	<0.5	<0.5

#### **Specific Migration of Metals**

Metals: The specific migration of aluminum, antimony, arsenic, barium, cadmium, chromium, cobalt, copper, iron, lead, lithium, manganese, mercury, nickel, zinc, europium, gadolinium, lanthanum, and terbium into simulant B is less than the individual limits specified by EU Regulation No. 10/2011.



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#### **Heavy Metal Compliance Report**

Portions of the sample were digested in sealed Teflon vessels and the resultant solutions were analyzed by inductively coupled plasma mass spectroscopy.

The limit specified in EC Directive 94/62/EC for the combined total of lead, cadmium, mercury and hexavalent chromium is 100 mg/kg.

The limit specified in the CONEG regulations in the USA for the combined total of these elements is 100 mg per kg of packaging material.

Level of Heavy Metals in Packaging (mg per kg of packaging material)

Bottle Grade PET Resin IR-A84	Pb	Cd	Cr	Hg	Total
Results	6	<0.006	<2	0.1	<8.106

#### **FDA Compliance Report**

Bottle Grade PET Resin IR-A84 Test Conditions Distilled Water: 2 hours at 250°F n-Heptane: 2 hours at 150°F 50%v/v ethanol: 24 hours at 120°F

Method	The state of the s	CFR21 177.1630 Total extract into heptane / mg/in2	
Limits	0.5	0.5	0.5
Results	0.01	0.01	0.01



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It is our customers' obligation to ensure that the materials supplied by Ismail Resin Private Limited and the goods created from them are appropriate for their intended purpose and comply with all applicable regulations and requirements.

This declaration applies only to Bottle Grade PET resin when it leaves the production facility of Ismail resin. This declaration excludes the following:

- Downstream consumers can add any additional substances.
- Inadequate manufacturing by downstream consumers might result in poor quality materials or finished products.
- Any unfavorable impact on packaged food's organoleptic characteristics due to the completed article.

For further clarification you can visit our site www.ismailresin.com.pk



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