GLOBAL MANAGEMENT

TECHNICAL SPECIFICATION JET FUEL (JET A-1) FROM BELARUS

PRODUCT IDENTIFICATION

- Product Name: Jet A-1
- CAS Number: 8008-20-6

PHYSICAL AND CHEMICAL PROPERTIES

Property	Specification	Unit
Appearance	Clear, colorless to straw-colored liquid	-
Density	0.780 - 0.840	g/cm³
Viscosity	Maximum 8.0	cSt
Flash Point	Minimum 38	°C
Freezing Point	Maximum -47	°C
Boiling Range	Approximately 150°C to 300°C	°C
Hydrogen Content	Approximately 13.0% by weight	% (w/w)
Carbon Content	Approximately 85.0% by weight	% (w/w)
Sulfur Content	Maximum 0.3% (typically ≤0.1%)	% (w/w)

CHEMICAL COMPOSITION

- Main Components: Predominantly alkanes (C8-C15), cycloalkanes, and aromatics (limited to a maximum of 25%).

PERFORMANCE REQUIREMENTS

Property	Specification	Unit
Energy Content	Minimum 42,000	kJ/kg
Smoke Point	Minimum 25	mm
Static Surface Tension	Minimum 35	mN/m

CONTAMINANTS

Property	Specification	Unit
Water Content	Maximum 30	mg/kg
Particulate Matter	Maximum 1	mg/L
Corrosiveness	Must pass copper strip corrosion test (maximum rating of 1b)	-

ADDITIVES

- Antioxidants: Added to improve storage stability.
- Anti-static Agents: To minimize static charge.
- Biocides: To prevent microbial contamination.
- Fuel System Icing Inhibitors: As needed for cold weather operations.

STORAGE AND HANDLING

- Storage Temperature: Keep below 60°C.
- Recommended Storage Material: Stainless steel, aluminum, or properly lined carbon steel.

TESTING METHODS

Property	Test Method
Density	ASTM D1298
Flash Point	ASTM D93 (Pensky-Martens)
Freezing Point	ASTM D2386
Water Content	ASTM D6304
Particulate Matter	ASTM D2276
Copper Strip Corrosion	ASTM D130

REGULATORY COMPLIANCE

- Compliance: With relevant local regulations and international standards such as ASTM D1655 and ICAO recommendations.

NOTES

- The jet fuel specifications can vary slightly based on the supplier and specific refining processes. It's essential to verify that the fuel meets the requirements of the intended aircraft and complies with local regulations.
- Regular quality assurance testing is crucial to ensure fuel integrity and operational safety.