

Rubber & Plastics Gas Applications Guide

(Ethylene C₂H₄, Propane C₃H₈, Carbon Dioxide CO₂, Nitrogen N₂, Hydrogen H₂)

YIGAS INTERNATIONAL LIMITED

1. Overview

Rubber and plastics processing use gases for polymerization, foaming, cooling and atmosphere control. YIGAS supplies Ethylene (C₂H₄), Propane (C₃H₈), CO₂, N₂ and H₂ for manufacturing lines.

2. Technical Specifications

Gas	Purity Level	Typical Phase	Temperature Range	Common Pressure
C ₂ H ₄	≥99.5%	Liquid / Gas	-104 °C	5—50 bar
C ₃ H ₈	≥99.5%	Liquid / Gas	-42 °C	5—25 bar
CO ₂	≥99.9%	Liquid / Gas	-78.5 °C	10—60 bar
N ₂	≥99.999%	Gas	-196 °C	5—200 bar
H ₂	≥99.999%	Gas	-253 °C	10—200 bar

3. Industrial Standards

All gases comply with:

- ISO 20457 – Gases used in polymer processing
- EIGA Doc 123/19 – Gas safety for polymers
- GB/T 3864–2020 – Gas labeling and identification

4. Applications

- C₂H₄ / C₃H₈: Monomer feedstock and polymerization control
- CO₂: Foam blowing and cooling (dry ice)
- N₂: Inerting, purging and blanketing
- H₂: Hydrogenation for specialty polymers

5. Packaging & Supply

Cylinder • ISO Tank • On-site Supply • Bulk

6. Contact Information

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This document provides reference specifications for YIGAS rubber & plastics gases. Customized supply and technical support are available upon request.