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COURSE BROCHURE

Gasoline Specifications, Testing and Blending Training Course

12 – 16 July 2027
Munich

Gasoline Specifications, Testing and Blending Training Course

Ref: 2344_87696 **Date:** 12 – 16 July 2027 **Location:** Munich **Fees:** 6200 GBP

Gasoline Specifications, Testing and Blending is a 1-week training course for refinery, blending and fuel quality engineers and laboratory staff, built around a gasoline batch release dossier. Tighter sulphur and volatility limits, new oxygenates and narrower margins make every blend decision costly to get wrong. Jupiter Prime Training presents this course on gasoline specifications, testing and blending.

Why Gasoline Specifications, Testing and Blending Matter Now

Three forces shape gasoline quality work today. Cleaner-fuel limits push sulphur, benzene and aromatics lower while engines demand stable knock resistance. Ethanol and other oxygenates change vapour pressure, water tolerance and distillation behaviour in ways older blend recipes never had to handle. A refinery that handles this well ships on-grade batches first time; one that handles it badly faces reblends, off-specification claims and lost trust. The course rests on the specification sheet, the standard laboratory test method and the precision statements that sit behind every reported result.

Who Gains Most from Gasoline Specifications, Testing and Blending

- Engineers who set blend recipes and component allocation for gasoline grades
- Laboratory analysts who run octane, vapour pressure and distillation tests
- Quality coordinators who sign batch certificates and handle product claims
- Process engineers who run reformers, isomerisation and alkylation units feeding the pool
- Terminal and loading staff who manage tank sampling and additive dosing

A refinery blending and laboratory group that sends planners and analysts together gains most, as both sides then read a result the same way.

Gasoline Specifications, Testing and Blending Capabilities

Participants work from component qualities to a released batch, linking each laboratory number to the blend choice it supports.

- Interpret each gasoline specification property and its limit — grade selection for a market
- Calculate blend octane and vapour pressure with blending indices — recipe approval
- Assess repeatability and reproducibility of a reported result — release or retest calls
- Specify additive packages and dosing for deposit and oxidation control — terminal operations
- Weigh octane and volatility giveaway against reblend risk — refinery margin owners
- Build a batch release record that answers a customer claim — commercial teams

Key Gasoline Specifications, Testing and Blending Terms

- Research Octane Number RON — knock resistance measured in a test engine at mild conditions, the figure printed on most pump grades.
- Motor Octane Number MON — knock resistance measured at harsher speed and intake temperature, usually several units below RON.
- Reid Vapour Pressure RVP — vapour pressure of gasoline at a fixed temperature, used to control evaporative losses and hot-weather vapour lock.
- Distillation Curve — temperatures at which set percentages of a sample evaporate, linked to cold start, warm-up and engine deposits.
- Oxygenate — an oxygen-bearing component such as ethanol or an ether, added to raise octane and alter combustion.
- Giveaway — quality delivered beyond the specification limit, which costs money because a cheaper component could have been used.

Gasoline Specifications, Testing and Blending Day by Day

Day 1: Gasoline Quality and the Specification Sheet

- Gasoline Specification Properties And Limits — Grade Definition For Each Market
- Seasonal Volatility Classes — Summer And Winter Grade Switching
- Sulphur, Benzene And Aromatics Limits — Cleaner Fuel Compliance Choices
- Refinery Gasoline Pool Components — Unit Contribution To Final Quality
- Engine Performance Links — Knock, Drivability And Deposit Concerns

Day 2: Laboratory Test Methods

- Knock Test Engine Procedure For RON And MON — Octane Certification
- Vapour Pressure And Distillation Testing — Volatility Release Checks
- Sulphur And Oxygenate Analysis By Instrument — Composition Confirmation
- Existent Gum And Oxidation Stability Tests — Storage Life Decisions
- Repeatability And Reproducibility Statements — Retest And Dispute Rules

Day 3: Blending Methods and Component Allocation

- Octane Blending Indices And Nonlinear Interactions — Recipe Accuracy
- Vapour Pressure Blending Index — Butane Addition Limits
- Ethanol Blending Effects On Volatility — Base Gasoline Design
- Linear Programming For Blend Optimisation — Component Allocation Across Grades
- Inline Blending With Online Analysers — Batch Versus Continuous Choices

Day 4: Additives, Storage and Product Release

- Deposit Control And Antioxidant Additives — Dosing And Treat Rate
- Tank Sampling And Composite Samples — Representative Release Evidence
- Water Tolerance And Phase Separation — Ethanol Blend Handling Rules
- Certificate Of Quality Preparation — Customer And Shipment Acceptance
- Off-Specification Root Cause Tracing — Reblend Or Downgrade Decisions

Day 5: Practising the Gasoline Batch Release Dossier

- Recipe Calculation For A Seasonal Grade — Applying Day 3 Indices
- Test Result Review Against Precision — Applying Day 2 Methods
- Giveaway Tally Across A Month Of Batches — Margin Recovery Targets
- Claim Response Case Study — Applying Day 4 Sampling Evidence
- Gasoline Batch Release Dossier — Signed Release Pack For One Batch

Applying Gasoline Specifications, Testing and Blending After the Course

- Run a giveaway tally on the last month of gasoline batches and rank the properties with the largest margin loss.
- Compare blending index predictions with laboratory octane and vapour pressure results and update the recipe correction factors.

Gasoline Specifications, Testing and Blending Questions FAQ

What are gasoline specifications, testing and blending, and why do they matter now?

They are the limits a fuel must meet, the laboratory methods that prove it and the recipes that combine refinery streams to hit them. Cleaner-fuel limits, oxygenates and tight margins make each blend and release decision more costly to get wrong.

Which roles gain most from gasoline specifications, testing and blending training?

Blending engineers, laboratory analysts and quality coordinators gain most.

How does gasoline specifications, testing and blending training differ from a refinery operations course?

It centres on product quality rather than unit operation. A refinery operations course follows how units run; this one follows the finished fuel, from component qualities and test precision to the blend recipe and the release record.

What do you bring back from gasoline specifications, testing and blending training?

You bring back a worked batch release record, blending index calculations you can reuse and a method for judging test precision. These help you cut giveaway and avoid reblends.

Gasoline Specifications, Testing and Blending: The Way Forward

The gasoline batch release dossier gathers the recipe, test results with their precision, additive dosing and the signed certificate for one batch. Its first use informs whether a seasonal grade can ship without reblending. Blending engineers, laboratory leads and quality coordinators share it. After first use, revisit the blending index corrections, since component qualities drift as unit feeds and catalysts change.