



TECHNICAL DATA SHEET

NPK Compound Fertilizer

Product name: NPK Fertilizer

Product type: Multi-nutrient agricultural fertilizer

Product forms: Granular, crystalline, water-soluble, coated slow-release, and NPK with trace elements

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Product Description

NPK Fertilizer is a multi-nutrient agricultural product containing nitrogen, phosphorus, and potassium. These primary nutrients support vegetative growth, root development, flowering, fruit formation, crop quality, and overall plant productivity.

Basekim supplies standard and customized NPK formulations in granular, crystalline, water-soluble, slow-release, and trace-element-enriched forms. Formulations can be selected according to crop type, growth stage, soil analysis, and regional agricultural requirements.

Main Applications

- Field crops
- Greenhouse production
- Vegetables
- Fruit trees
- Horticultural crops
- Commercial plantations
- Fertigation systems
- Soil application
- Agricultural blending
- Crop-specific nutrition programs



Key Benefits

- Supplies nitrogen, phosphorus, and potassium in one product
- Supports balanced plant development
- Promotes root and shoot growth
- Improves flowering and fruit formation
- Helps increase crop yield and quality
- Available in fast-dissolving and granular grades
- Suitable for customized nutrient programs
- Can be supplied with additional trace elements
- Available for soil application and fertigation

Available Grades and Applications

NPK Formula	Product Type	Main Application	Solubility	Description
NPK 15-15-15	Granular / Crystalline	General agriculture	Medium / High	Balanced multi-purpose fertilizer
NPK 20-20-20	Water-soluble	Greenhouses and vegetables	High	High-purity, fast-dissolving formulation
NPK 30-10-10	Crystalline	Vegetative and leaf growth	High	Nitrogen-rich formulation
NPK 10-52-10	Crystalline	Root development and early growth	High	High-phosphorus formulation
NPK 12-12-36	Water-soluble	Flowering and fruit development	High	Potassium-rich formulation
Custom NPK	All types	Crop- and region-specific use	Grade dependent	Customized according to customer requirements

These formulas and recommended applications are presented on Basekim's product page.



Typical Physical Properties

Property	Typical Description
Appearance	Granules, crystals, or free-flowing powder
Colour	Grade dependent
Odour	Odourless or mild characteristic odour
Nutrient content	According to declared NPK grade
Water solubility	Medium to complete, depending on grade
Moisture	Grade dependent
pH of aqueous solution	Typically mildly acidic to neutral
Bulk density	Grade dependent
Particle size	According to granular or crystalline grade
Caking tendency	Low when correctly stored
Trace elements	Available upon request

Note: Physical values and nutrient tolerances must be confirmed by the applicable product specification and Certificate of Analysis.

Nutrient Function

Nitrogen — N

Nitrogen promotes vegetative growth, leaf formation, chlorophyll production, and protein synthesis.

Phosphorus — P_2O_5

Phosphorus supports root formation, early plant development, flowering, energy transfer, and crop establishment.

Potassium — K_2O

Potassium contributes to water regulation, fruit quality, plant strength, disease tolerance, and resistance to environmental stress.



Application Guidelines

The application rate depends on:

- Crop type
- Growth stage
- Soil nutrient level
- Irrigation method
- Climate
- Expected yield
- Selected NPK formula

A soil or plant-tissue analysis should be used to establish the appropriate fertilizer program.

Granular Grades

Apply directly to the soil by broadcasting, band placement, or localized application. Incorporate into the soil where appropriate and irrigate after application.

Water-Soluble Grades

Dissolve in clean water before use in fertigation or foliar systems. Confirm compatibility before mixing with calcium-containing fertilizers, pesticides, or other concentrated agricultural chemicals.

General Precautions

- Do not exceed the recommended agricultural dosage.
- Avoid direct contact between concentrated fertilizer and seeds or roots.
- Ensure uniform product distribution.
- Flush fertigation equipment with clean water after use.
- Carry out a small compatibility test before tank mixing.



Recommended Dosage

Application rates vary according to the crop and formulation. The following ranges are general starting guidelines only:

Application Method	General Starting Range
Soil application	100–500 kg/ha
Fertigation	1–5 kg/ha per application
Foliar application	1–3 kg per 1,000 L water
Greenhouse application	According to crop nutrition program

Final dosage should be determined by a qualified agronomist based on soil analysis, crop demand, water quality, and local agricultural practices.

Compatibility

NPK fertilizer is generally compatible with common agricultural programs. However, concentrated solutions should be tested before mixing.

Avoid direct concentrated mixing with:

- Calcium nitrate
- Calcium chloride
- Strongly alkaline materials
- Products that may form insoluble phosphate precipitates
- Unverified pesticides or micronutrient concentrates

Always perform a jar test before preparing a large tank mixture.

Storage

- Store in a cool, dry, and well-ventilated warehouse.
- Keep bags tightly closed.
- Protect from moisture and direct sunlight.
- Store on pallets away from floors and walls.
- Keep away from heat and incompatible chemicals.
- Prevent contamination with fuel, oil, organic material, or other fertilizers.
- Use opened bags promptly.



- Follow first-in, first-out inventory procedures.

Shelf Life

Typical shelf life: 24 months from the manufacturing date when stored in unopened original packaging under dry and suitable warehouse conditions.

Actual shelf life may vary according to formulation, coating, moisture level, and packaging.

Packaging

Available packaging includes:

- 25 kg bags
- 50 kg bags
- 1 metric ton jumbo bags
- OEM and private-label packaging

Basekim also states that mixed-formula container loading may be arranged upon request.

Minimum Order Quantity

The typical minimum order quantity is one 20-foot container, subject to formulation, packaging, and commercial agreement.

Quality Control

Each batch should be tested for the parameters relevant to the selected grade, including:

- Total nitrogen
- Available phosphate as P_2O_5
- Soluble potassium as K_2O
- Moisture
- Particle size
- Water solubility
- pH



- Trace-element content, where applicable
- Appearance and caking condition

A Certificate of Analysis should accompany each shipment.

Handling and Safety

Avoid inhalation of fertilizer dust and prolonged contact with the eyes or skin.

Wear suitable gloves, protective clothing, safety glasses, and dust protection where necessary.

Wash hands thoroughly after handling.

Refer to the current Safety Data Sheet before storage, handling, or use.