TECHNICAL DATA SHEET

# Sodium Naphthalene Formaldehyde (SNF) 20% Grade

SNF water reducing agent and dispersant for concrete, cement and industrial formulations

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| **Product Code** | GAC-SNF-20 | **CAS No.** | 36290-04-7 |
| **HS Code** | 3824401000 | **CB Number** | CB8129327 |
| **Grade / Model** | SNF-20% | **Physical Form** | Brown or dark brown powder |
| **Division** | Industrial Chemicals | **Website** | www.lignincorp.com |

| Product Type | Primary Role | Application Focus | Document Status |
|---|---|---|---|
| Sodium naphthalene sulfonate formaldehyde condensate | High-range water reducer / dispersant | Concrete, cement, dispersion and industrial processing | Rewritten TDS based on supplied specification |

## 1. Product Overview

Sodium Naphthalene Formaldehyde (SNF), also referred to as PNS or NSF, is a brown or dark brown powder. It is commonly used as a dispersant, leather tanning agent, building cement concrete water reducing agent and oil well cement water reducing agent.

## 2. Specification

| Parameter | Specification |
|---|---|
| Model / Grade | SNF-20% |
| Cement Paste Fluidity | 210 mm min |
| Chloride Content, Cl- | 0.5% max |
| pH Value | 7 - 9 |
| Surface Tension | (71 +/- 1) x 10^-3 N/m |
| Solids Content | 91% min |
| Sodium Sulfate Content, Na2SO4 | 20% max |

## 3. Technical Features

- Reduces water consumption without affecting normal cement concrete construction, helping reduce internal pores and improve concrete strength.
- Improves workability of cement concrete and reduces construction mixing energy consumption.
- Can reduce cement and water dosage while maintaining performance and mechanical properties, supporting cost-efficient concrete formulations.
- No adverse effect on concrete shrinkage under normal recommended usage and no corrosive effect on steel reinforcement based on supplied product information.

## 4. Performance Test Data

| Item | Age / Condition | Criteria | Actual Result |
|---|---|---|---|
| Water Reduction, % | - | 14 min | 16 |
| Bleeding Rate Ratio, % | - | 90 max | 85 |
| Air Content, % | - | 3.0 max | 2.0 |
| Compressive Strength Ratio, % | 1 d | 140 min | 160 |
| Compressive Strength Ratio, % | 3 d | 130 min | 155 |
| Compressive Strength Ratio, % | 7 d | 125 min | 135 |
| Compressive Strength Ratio, % | 28 d | 120 min | 125 |
| Shrinkage, % | 28 d | 135 max | 89 |

## 5. Recommended Usage

- Typical blending dosage: 0.5%-1.0% by weight of cementitious material; 0.75% is recommended as an initial trial dosage.
- Prepare aqueous solutions as required by production or batching conditions.
- Pre-test compatibility with cement, aggregates and other admixtures before commercial application.

## 6. Packaging, Storage and Handling

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| **Packaging** | Woven bags for powder products. Common net weight: 25 kg +/- 0.2 kg; jumbo bags 500 kg or 600 kg. Other packing may be arranged by contract. |
| **Storage** | Store in a dedicated, dry and well-ventilated warehouse. Keep bags sealed and protected from moisture. |
| **Moisture Handling** | If affected by damp conditions, crush the material or dissolve it into solution before use. Product effectiveness should be verified before application. |
| **Cautions** | Prevent packages from being torn by sharp objects during transfer or delivery. Avoid dust inhalation and eye/skin contact. Refer to MSDS/SDS before use. |

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| **Shelf Life** | Typically 12 months when stored in original packaging under dry conditions. Confirm shelf life according to contract and batch documentation. |

## 7. Disclaimer

*The information above is based on the supplied technical data and is provided for industrial reference only. Product suitability must be confirmed by the user through application testing under actual conditions. Final specifications are subject to the sales contract, batch COA and original signed/stamped documents.*