

IS 19058: 2024 - Ultrafine Fly Ash — Specification

Ultrafine fly ash (UFFA) is a very fine pozzolanic material (pulverized fuel ash) consisting of ultrafine, glassy, spherical particles (of average size 3 micron to 5 micron) produced through multistage classification of selected fly ash conforming to IS 3812 (Part 1) : 2013 ‘Pulverized fuel ash — Specification: Part 1 For use as pozzolana in cement, cement mortar and concrete (third revision)’. Due to the fine size of ultrafine fly ash particles, it has more reactive surface area, which helps to achieve higher early strength and lower permeability to the concrete mix due to mechanical packing effect of well graded fine particles.

The use of finer pozzolanic materials in production of concrete especially of higher grades (M 60 and above) is progressively increasing in India. Keeping this trend in view and to meet the requirement of the construction industry, the standard on silica fume, IS 15388: 2003 ‘Silica fume — Specification’ was formulated earlier. The standard for another ultrafine material, metakaolin was also formulated as IS 16354: 2015 ‘Metakaolin for use in cement, cement mortar and concrete — Specification’. The advancements made during the last decade in grinding and classification technologies aided in yet another standard on ultrafine slag namely IS 16715: 2018 ‘Ultrafine ground granulated blast furnace slag — Specification’. This standard is also in line with the above.

The ultrafine slag as well as ultrafine fly ash, both are indigenously produced in India while majority of silica fume is imported. The performance of these ultrafine materials when used as part replacement of cement in concrete or mortar in the range of 5 percent to 10 percent is comparable and found to enhance the properties and durability of concrete especially its permeability.

This standard covers the chemical and physical requirements of ultrafine fly ash for use in concrete, mortar and other systems containing hydraulic cement.

IS 18267: 2024 Food Serving Utensils Made from Agri By-products — Specification (First Revision)

The demand for the disposable/one time use food serving utensils in the gatherings and social activities have increased in the recent years, due to the advantage of no cleaning efforts after the usage. Most of such disposable utensils are polythene based and ultimately non-degradable, posing environmental concerns. Use of degradable, preferably biodegradable materials for the manufacture of such disposable utensils has gained importance over the years. Many agriculture-based materials, usually leaves, sheaths, etc. are preferred for making the utensils in the form of plates, cups, bowls, etc as per requirement. Such materials are the waste or by-products of cultivation practices and available at no or low cost. The leaves/sheath are collected from the fields, as fallen, or removed after the harvest of the economic part of the plant/crop.

In the recent years, the number of manufacturers of degradable utensils has increased across the country. These manufacturers produce the utensils as per their standards and quality. This standard was originally published in 2023 to guide the manufacturers and the consumers on the quality parameters and ensure uniform standards across the country. In order to resolve the problems faced in the implementation of this standard, a need was felt to revise this standard.

Accordingly, in this revision, following major changes have been done:

- a. The requirement for bending test for utensils made through hot pressing and moulding method has been omitted as this test is not relevant for such utensils;
- b. In terminology, the definitions of the terms ‘moisture content (dry basis)’ and ‘normal temperature’ have been incorporated for guidance;
- c. Tolerances on the dimension of the utensils have been reset and categorized based on the size of utensils; and
- d. The reference standard for the test method for the presence of the microorganism has been changed to
IS 5402 (Part 1).

During preparation of this standard, significant assistance has been drawn with respect to testing methodology of various parameters from GB 18006-2008 (National Standard of the People's Republic of China) and the report of research study ‘Evaluation of agro-based disposable utensils for defining their standard and test methods carried out at ICAR-Central Institute of Post-Harvest Engineering and Technology, Ludhiana.

IS 19082 : 2024/ISO 22326 : 2018 Security and Resilience — Emergency Management — Guidelines for Monitoring Facilities with Identified Hazards

In recent years, there has been a growing awareness of the risks and consequences of natural and industrial disasters. Monitoring hazards can reduce potential losses through improved prevention, mitigation, preparedness and a more effective response to incidents resulting from the hazards.

Effective monitoring can provide public and private sector emergency management with ongoing, timely, accurate, easily understood relevant monitoring data to support decision-making in emergency management.

Security standards are continually evolving and improving. Advances in monitoring technology will provide opportunities for further improvement of these guidelines and for development and application of innovative monitoring solutions.

The purpose of this document is to contribute to an overall emergency management framework which seeks to reduce the risk to people, operations, property and the environment.

This document provides guidelines for the entire process of hazard monitoring at facilities with identified hazards, including planning, implementation, operation and control, and review and continual improvement. This document is applicable to all facilities with identified hazards and may be used by stakeholders and authorities responsible for safety and security, such as

- owners and operators of facilities,
- engineers, installers and contractors during facility planning, construction, and maintenance,
- public authorities responsible for emergency prevention activities and incident response,
- insurance companies and potentially affected residents,
- legislators, and
- the scientific community and researchers.