

BURNT SHALE FOR THE PLASTICS INDUSTRY
Specifications and conformity criteria

Põletatud põlevkivi plastitööstusele
Spetsifikatsioonid ja vastavuskriteeriumid

NATIONAL FOREWORD

This Estonian standard is

- the identical English version of the Estonian Standard EVS 940:2019 and it has the same status as the original Estonian version. In case of interpretation disputes the original version applies;
- endorsed with a notification published in the July 2020 issue of the official bulletin of the Estonian Centre for Standardisation.

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INTRODUCTION

Burnt shale is regarded in this standard as a product, that is used as a filler material in one of the components in the composition of plastic.

The use of burnt shale in the plastics industry has caused the need to present requirements for burnt shale as a filler material, the organisation of its production control and the presentation of a procedure proving its conformity. It is not known that standards published up to the present contain collected requirements for the use of burnt shale in the plastics industry.

The requirements presented in the standard are based on the knowledge of the moment, which has taken into consideration the production possibilities of burnt shale and the requirements necessary for the production of plastic.

1 SCOPE

This Estonian standard is valid for thermally treated oil shale or its mixtures, where the proportion of oil shale is at least 70 % (hereafter burnt shale or BS). Burnt shale is used as a filler material in plastic. Burnt shale consists of clinker material, free lime, dehydrated calcium sulphate and a mixture of partially caked particles of the previously mentioned components and depending on its fineness is divided into the following product classes:

- Plastic BS – F
- Plastic BS – M
- Plastic BS – C.

The standard establishes the characteristics, required testing methods and a procedure for the evaluation of conformity of burnt shale.

2 NORMATIVE REFERENCES

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EVS-EN 196-2. Method of testing cement - Part 2: Chemical analysis of cement

EVS-EN 196-7. Methods of testing cement - Part 7: Methods of taking and preparing samples of cement

EVS 668. Oil shale - Determination of moisture

ISO 13320. Particle size analysis – Laser diffraction methods

IEC 61452. Nuclear instrumentation – Measurement of gamma-ray emission rates of radionuclides - Calibration and use of germanium spectrometers

3 TERMS, DEFINITIONS AND ABBREVIATIONS

For the purposes of this document, the following terms and definitions apply.

3.1 Terms and definitions

3.1.1

plastic BS (*burnt shale for plastics*)

filler material obtained as the result of thermal treatment of oil shale

3.1.2

plastic BS – F (*fine burnt shale for plastics*)

burnt shale with a fineness of less than 15 µm

3.1.3

plastic BS – M (*medium burnt shale for plastics*)

burnt shale with a fineness of less than 220 µm

3.1.4

plastic BS – C (*coarse burnt shale for plastics*)

burnt shale with a fineness of less than 3000 µm