

**COATINGS FOR CORES**

Date of issue: 01 Sept 1995

Modification: 05

Date of validity: 03 Dec 2007

1. PURPOSE OF USE

It is used for coating the cores made according to the CO₂, Croning and Cold Box procedures, as well as the other procedures of core production.

2. GENERAL QUALITY REQUIREMENTS

Conformity with the manufacturer's catalogue.

3. PROPERTIES OF MATERIAL**3.1. ALCOHOL-BASED COATING**

Alcohol-based mixed ceramic-graphite coating must contain binders that are mainly of inorganic character. It may settle (up to max. 6%). After application, coating layer must form an equally distributed surface film without any defects (it must not form droplets). It must have the capability of application on the core by submerging, painting or spraying. After drying (on air), it must have good wear strength. Alcohol-based coating is suitable for painting cores made according to CO₂ procedure.

3.2. WATER-BASED COATING

Water-based mixed ceramic-graphite coating must contain binders that are mainly of inorganic character. It may settle (up to max. 5%). After application, coating layer must form an equally distributed surface film without any defects (droplets). It must have the capability of application on the core by submerging, painting or spraying. After drying in drying furnace (fan dryer, microwave dryer), the core surface must be without any defects. In dry state, it must have good surface strength. Coating must be resistant to bacteriological fermentation (it must contain substances that prevent bacteriological growth).

4. PACKAGING, PACKING AND TRANSPORT

Coatings may be packaged in buckets with weights from 25 – 250 kg or in containers with weights of up to 1200 kg, depending on the manufacturer, with manufacturer's designation, name, date of production and net weight.

5. WARRANTY OF QUALITY

For each shipment of alcohol-based coating, the quality assurance certificate is required regarding the:

- viscosity (as-delivered state)
- specific weight (as-delivered state)
- settling (as-delivered state)

For each shipment of water-based coating, the quality assurance certificate is required regarding the:

- dry matter (as-delivered state)
- specific weight (as-delivered state)
- settling (diluted state – recommended for use of coating)

6. MANNER OF ACCEPTANCE

Coatings will be accepted by the company's acceptance control.

7. CONTROL PROCEDURE

Certificate control.

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8. MANNER OF MEASUREMENT**QUALITY CHARACTERISTICS, VALUE, MANNER OF MEASUREMENT****8.1 NAME: GRAPHITE ALCOHOL-BASED COATINGS FOR CORES**

QUALITY CHARACTERISTICS	VALUE	MANNER OF VERIFICATION
Density or specific weight	1.1 – 1.3 g/cm ³	Certificate
Dry matter	51 - 58 %	Certificate
Settling (after 24 hours)	max. 4%	Certificate

8.2 NAME: ZIRCON ALCOHOL-BASED COATINGS FOR CORES

QUALITY CHARACTERISTICS	VALUE	MANNER OF VERIFICATION
Density or specific weight	1.9 – 2.2 g/cm ³	Certificate
Dry matter	69 - 73 %	Certificate
Settling (after 24 hours)	max. 4 %	Certificate

8.3 NAME: ZIRCON-GRAPHITE ALCOHOL-BASED COATINGS FOR CORES

QUALITY CHARACTERISTICS	VALUE	MANNER OF VERIFICATION
Density or specific weight	1.4 – 1.8 g/cm ³	Certificate
Dry matter	60 - 70 %	Certificate
Settling (after 24 hours)	max. 5 %	Certificate

8.4 NAME: ALUMOSILICATE ALCOHOL-BASED COATINGS FOR CORES

QUALITY CHARACTERISTICS	VALUE	MANNER OF VERIFICATION
Density or specific weight	1.1 – 2.0 g/cm ³	Certificate
Dry matter	60 - 68 %	Certificate
Settling (after 24 hours)	max. 6 %	Certificate

8.5 NAME: SILICATE OXIDE WATER-BASED COATING FOR CORES

QUALITY CHARACTERISTICS	VALUE	MANNER OF VERIFICATION
Density or specific weight (as-delivered state)	1.45 – 1.6 g/cm ³	Certificate
Dry matter (as-delivered state)	min. 54 %	Certificate
Settling after 24 hours (diluted state – recommended for use)	max. 5 %	Certificate

8.6 NAME: SPECIAL WATER-BASED COATING FOR CORES

QUALITY CHARACTERISTICS	VALUE	MANNER OF VERIFICATION
Density or specific weight (as-delivered state)	1.2 – 1.8 g/cm ³	Certificate
Dry matter (as-delivered state)	min. 60 %	Certificate
Settling after 24 hours (diluted state – recommended for use)	max. 3 %	Certificate