



## **COATED SILICEOUS SAND**

Date of issue: 01 Sept 1995

Modification: 06

Date of validity: 21.Jan 2013

### **1. PURPOSE OF USE**

It is used for production of cores according to the Croning procedure.

### **2. GENERAL QUALITY REQUIREMENTS**

Conformity with the manufacturer's catalogue and certificate.

### **3. PROPERTIES OF MATERIAL**

The basic sand must be narrowly classified siliceous sand without clay, coated with fenolformaldehyde resin, while its granulation must be within the required limits. Coated sand must be free-flowing and homogenous, without any clay or moisture.

### **4. PACKAGING, PACKING AND TRANSPORT**

Coated sand should be delivered in 1500-kg metallic crates for sand or big bags with manufacturer's designation, name, batch number and date of production.

### **5. WARRANTY OF QUALITY**

For each shipment, the manufacturer's quality assurance certificate is required by batches.

### **6. MANNER OF ACCEPTANCE**

Coated sand will be accepted by the acceptance control of LIVAR.

### **7. CONTROL PROCEDURE**

Upon acceptance, the sample inspection regarding the loss on ignition is conducted. Certificate control (sieve analysis). If required, inspection of sieve analysis is conducted.

In case of any doubt in the correctness of statements in the certificate, the quality verification is conducted at an external institution.

**COATED SILICEOUS SAND**

Datum izdaje: 01.09.1995

Sprememba: 04

Datum veljave: 11.05.2009

**8. MANNER OF MEASUREMENT**

## QUALITY CHARACTERISTICS, VALUE, MANNER OF MEASUREMENT

NAME: COATED SILICEOUS SAND

Code: 4301401

QUALITY CHARACTERISTICS	VALUE	MANNER OF VERIFICATION
<b>Loss on ignition:</b>	3.5 - 3.9 %	Ignition at 900 °C min. 90 minutes or until constant mass (Livar lab.)
<b>Granulation:</b>		
Mean value (MV)	0.17–0.20 mm	Sieve analysis (Livar lab.)
Fineness number (AFS-No)	60-75	Sieve analysis (Livar lab.)
Equality degree (ED)	min. 65	Sieve analysis (Livar lab.)
Quantity of over-grain above 0.5 mm	Max. 1%	Sieve analysis (Livar lab.)
Quantity of sub-grain under 0.063 mm	Max. 0.5%	Sieve analysis (Livar lab.)
<b>Mechanical properties:</b>		
Tensile strength in hot environment	Min. 140N/cm <sup>2</sup>	+GF+ 250°C, 2min (lab. supplier)
Bending strength in hot environment	Min. 210N/cm <sup>2</sup>	+GF+ 280°C, 1min (lab. supplier)
Bending strength in cold environment	Min. 600N/cm <sup>2</sup>	+GF+ (lab. supplier)
Peel back	Under 260g	+GF+ 200°C 1min (lab. supplier)

NAME: COATED SILICEOUS SAND

Code: 4301301

QUALITY CHARACTERISTICS	VALUE	MANNER OF VERIFICATION
<b>Loss on ignition:</b>	3.5 – 3,9 %	Ignition at 900 °C min. 90 minutes or until constant mass (Livar lab.)
<b>Granulation:</b>		
Mean value (MV)	0.18 - 0.21 mm	Sieve analysis (Livar lab.)
Fineness number (AFS-No)	63-75	Sieve analysis (Livar lab.)
Equality degree (ED)	min.85	Sieve analysis (Livar lab.)
Quantity of over-grain above mm	Max. 0,5 %	Sieve analysis (Livar lab.)
Quantity of sub-grain under mm	Max. 0.5 %	Sieve analysis (Livar lab.)
<b>Mechanical properties:</b>		
Tensile strength in hot environment	Min. 160N/cm <sup>2</sup>	+GF+ 250°C, 2min (lab. supplier)
Bending strength in hot environment	Min. 210N/cm <sup>2</sup>	+GF+ 280°C, 1min (lab. supplier)
Bending strength in cold environment	Min. 750N/cm <sup>2</sup>	+GF+ (lab. supplier)
Peel back	Under 220g	+GF+ 200°C 1min (lab. supplier)

**COATED SILICEOUS SAND**

Datum izdaje: 01.09.1995

Sprememba: 04

Datum veljave: 11.05.2009

NAME: COATED SILICEOUS SAND

Code: 4301802

QUALITY CHARACTERISTICS	VALUE	MANNER OF VERIFICATION
<b>Loss on ignition:</b>	3.85-4,15 %	Ignition at 900 °C min. 90 minutes or until constant mass (Livar lab.)
<b>Granulation:</b>		
Mean value (MV)	0.17-0.20 mm	Sieve analysis (Livar lab.)
Fineness number (AFS-No)	60-75	Sieve analysis (Livar lab.)
Equality degree (ED)	min. 65	Sieve analysis (Livar lab.)
Quantity of over-grain above mm	Max.1 %	Sieve analysis (Livar lab.)
Quantity of sub-grain under mm	Max. 0.5 %	Sieve analysis (Livar lab.)
<b>Mechanical properties:</b>		
Tensile strength in hot environment	Min. 190N/cm <sup>2</sup>	+GF+ 250°C, 2min (lab. supplier)
Bending strength in hot environment	Min. 280N/cm <sup>2</sup>	+GF+ 280°C, 1min (lab. supplier)
Bending strength in cold environment	Min. 560 N/cm <sup>2</sup>	+GF+ (lab. supplier)
Peel back	Under 280g	+GF+ 200°C 1min (lab. supplier)