

For Restricted Circulation only

 SHAKAMBHARI GROUP #SteelWithin	SHAKAMBHARI ISPAT & POWER LTD. (Formerly known as Ess Dee Aluminium Ltd.)		
STANDARD TEST METHOD			
Title: Distillation Range of Rolling Oil			Page No. 1 of 2
STM No.	Version No.	Effective Date	Next review date
SIPL/STM/019	00	06.07.2026	05.07.2028

1.0 PURPOSE

1.1 To determine the IBP, FBP & Recovery of roll coolant (rolling) oil.

2.0 SCOPE

2.1 This STM is applicable to the determination of the distillation range (IBP, FBP and % Recovery) of roll coolant / rolling oil at the Quality Control laboratory of Shakambhari Ispat & Power Ltd.

3.0 REFERENCE(S) & ATTACHMENTS**3.1 References**

3.1.1 In-house

3.2 Attachments

3.2.1 Nil

4.0 RESPONSIBILITY**4.1 Quality Control Department:**

4.1.1 To carry out the distillation test as per this STM and record the results.

4.2 Quality Assurance Head:

4.2.1 To ensure the implementation of the defined system.

5.0 DISTRIBUTION

5.1 Quality Assurance

5.2 Quality Control

6.0 DEFINITION(S) & ABBREVIATION(S)**6.1 Definitions**

6.1.1 **IBP (Initial Boiling Point):** The temperature at which the first drop of distillate falls.

6.1.2 **FBP (Final Boiling Point):** The temperature at which the last drop of oil from the bottom of the flask evaporates.

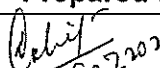
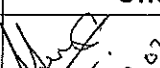
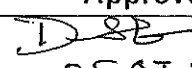
6.1.3 **Recovery:** The volume of distillate collected, expressed as a percentage of the original sample volume.

6.2 Abbreviations

6.2.1 IBP – Initial Boiling Point

6.2.2 FBP – Final Boiling Point

6.2.3 CTC – Carbon Tetrachloride

Prepared By:	Checked By:	Approved By:
 05.07.2026	 05.07.2026	 05.07.2026

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7.0 PROCEDURE**7.1 Materials and Equipment**

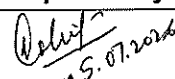
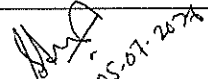
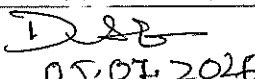
- 7.1.1 Distillation Flask
- 7.1.2 Thermometer, range 0 to 400°C
- 7.1.3 Graduated Cylinder, 100 ml
- 7.1.4 100 ml roll coolant oil sample
- 7.1.5 Carbon Tetrachloride (CTC) or Benzene

7.2 Method

- 7.2.1 Set up the apparatus.
- 7.2.2 Take a 100 ml sample of rolling oil into the distillation flask and connect it with the delivery tube.
- 7.2.3 Insert the thermometer in such a way that the lower end of the capillary of the thermometer coincides with the lower end of the delivery tube.
- 7.2.4 Apply heat to the distillation flask and its contents.
- 7.2.5 Record the temperature at which the first drop falls — this is the Initial Boiling Point (IBP).
- 7.2.6 Regulate the heat so that distillation proceeds at a uniform rate of between 4-6 ml per minute.
- 7.2.7 Record the temperature at every 10 ml mark until 90 ml distillate has been collected. Do not regulate the temperature after 90% recovery.
- 7.2.8 Record the temperature when the last drop of oil from the bottom of the flask evaporates. This is the FBP. Neglect any condensed vapour from the cooler part of the flask.
- 7.2.9 Record the volume of the distillate in the measuring flask. This is the percentage of Recovery.

8.0 REVISION HISTORY

Revision No.	00	Effective Date	06.07.2026	CC No.	NA
Details of revision: New SOP					

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