

For Restricted Circulation only

 SHAKAMBHARI GROUP #SteelWithin		SHAKAMBHARI ISPAT & POWER LTD. (Formerly known as Ess Dee Aluminium Ltd.)	
STANDARD TEST METHOD			
Title: Identification of Nitrocellulose (NC)			Page No. 1 of 2
STM No.	Version No.	Effective Date	Next review date
SIPL/STM/017	00	06.07.2026	05.07.2028

1.0 PURPOSE

- 1.1 To define a test method for identification of Nitrocellulose (or Cellulose Nitrate) over-coating in printed aluminium foils. This test ensures that the overcoat medium is nitrocellulose based.

2.0 SCOPE

- 2.1 This STM applies to the Quality Control department.

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 QC Department Person:**

- 4.1.1 To carry out the testing as per the STM.

4.2 QC Department Head:

- 4.2.1 To prepare and ensure the implementation of the STM.

4.3 QA Head:

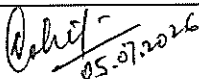
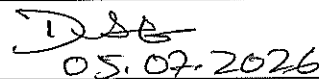
- 4.3.1 To approve the new or revised STM, and to ensure the implementation of the defined system.

5.0 DISTRIBUTION

- 5.1 Quality Assurance
5.2 Quality Control

6.0 DEFINITION(S) & ABBREVIATION(S)

- 6.1 **Definitions:** Nil
6.2 **Abbreviations:** Nil

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

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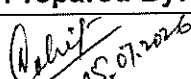
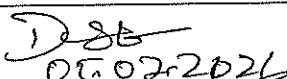
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7.0 PROCEDURE

- 7.1 **First prepare the reagents:** Take 90 ml concentrated Sulfuric Acid (H_2SO_4) and add 10 ml of distilled water to it. Dissolve 1 gram of Diphenylamine ($C_{12}H_{11}N$) in this 100 ml of solution and fill the solution in a dropping bottle.
- 7.2 Pour one drop of the mixed reagent on the test sample. For printed samples, apply it on the unprinted area.
- 7.3 If deep blue coloration appears within 30 seconds, then nitrocellulose is present.
- 7.4 **Note:** In case the aluminium foil has a coloured background, this test is not applicable. This test only detects the presence of over-coating on the printed surface. For scuff proofness performance, the respective test has to be carried out.

8.0 REVISION HISTORY

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

Prepared By:	Checked By:	Approved By:
 05.07.2026		 05.07.2026