

For Restricted Circulation only

 SHAKAMBHARI GROUP #SteelWithin		SHAKAMBHARI ISPAT & POWER LTD. (Formerly known as Ess Dee Aluminium Ltd.)	
STANDARD TEST METHOD			
Title: Checking of GSM (Grammage) of Substrate			Page No. 1 of 2
STM No.	Version No.	Effective Date	Next review date
SIPL/STM/004	00	06.07.2026	05.07.2028

1.0 PURPOSE

- 1.1 To define a test method for determination of the total grammage (GSM) of any substrate, e.g. Foil, PVC, Alu-Alu, etc.

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

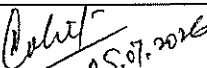
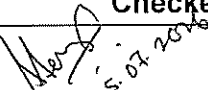
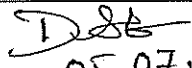
- 5.2 Quality Control

6.0 DEFINITION(S) & ABBREVIATION(S)

- 6.1 **Definitions:** Nil

6.2 Abbreviations

- 6.2.1 GSM: Grams Per Square Meter

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

For Restricted Circulation only

 SHAKAMBHARI GROUP # SteelWithin		SHAKAMBHARI ISPAT & POWER LTD. (Formerly known as Ess Dee Aluminium Ltd.)	
STANDARD TEST METHOD			
Title: Checking of GSM (Grammage) of Substrate			Page No. 2 of 2
STM No.	Version No.	Effective Date	Next review date
SIPL/STM/004	00	06.07.2026	05.07.2028

7.0 PROCEDURE

7.1 For samples which can be cut by round GSM cutter

- 7.1.1 Cut a 10 square cm round sample using the round GSM cutter template.
- 7.1.2 Weigh the test specimen and record the weight (W1) on the weighing balance having a least count of minimum 1 mg.
- 7.1.3 Calculate the GSM of the sample as below:
- 7.1.4 $GSM = W1 \times 100$

7.2 For samples which are smaller and cannot be cut by round GSM cutter

- 7.2.1 Cut the sample using a 1.5 cm x 1.5 cm template, or any smaller size, uniformly.
- 7.2.2 Weigh the test specimen and record the weight (W1) on the weighing balance having a least count of minimum 1 mg.
- 7.2.3 Calculate the GSM of the sample as below:
- 7.2.4 $Total\ GSM = [Weight\ (grams) \times 100 \times 100] / [Length \times Width\ (in\ cm)]$

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:
