


INTER PLANT STANDARD - STEEL INDUSTRY		
 IPSS	SPECIFICATION FOR HDPE SHEETS	IPSS:3-01-012-98
	Corresponding IS does not exist	

0. FOREWORD

- 0.1 This Inter Plant Standards has been prepared by Sub-committee on A & X Category Items, IPSS 3:1/5 and was approved by the Standards Committee on Materials Management, IPSS 3:1. This was adopted as an IPSS Standards in June 1998.
- 0.2 HDPE (High Density Polyethylene) Sheets for packaging of cold rolled (CR) coils and sheets, tin plates, stainless sheets and galvanized sheets, and coils, belong to A & X Category items and thus attracted the attention of SAIL Management for effecting the necessary variety reduction for cost saving. After an extensive data collection and their analysis, it came to light that for packaging the cold rolled coils and sheets, Bokaro Steel Plant (BSL) and Rourkela Steel Plant (RSP) were respectively purchasing HDPE sheets of optimum quality and at lowest price. This aspect has been kept into consideration while preparing this standard.

1. SCOPE

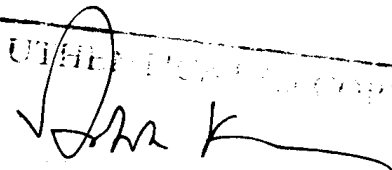
- 1.1 This Inter Plant Standard covers the requirements of HDPE sheets for packaging steel plants products like CR Coils, CR Sheets, Tin Plates, Stainless Steel Sheet, Galvanized Sheets (Plain and corrugated) and Galvanized coils.

2. DEFINITIONS

- 2.1 Denier - Weight of 9000 m length of fibre in grams.
- 2.2 Mesh - No. of threads per inch, in the fabric.

3. REQUIREMENTS

- 3.1 The requirements of different characteristics of HDPE sheets shall be as per Table-1.
- 3.2 The material for the manufacture of sheets shall generally conform to the material specified in IS:9755-1989 'High Density Polyethylene (HDPE) woven sacks for packaging fertilizers (second revision)' and shall be virgin raw material of natural white colour and flat woven.


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- 3.3 Weight per square meter of HDPE fabric of 14x14 mesh shall be 98 gm (Min) and that of lamination(LDPE) covering both sides of HDPE sheet shall be 92.3 gm (Min). As such weight per square meter of the composite finished material shall be 190.3 gm (Min).
- 3.4 HDPE tape or nylon thread shall be used for jointing along the length of the sheet for packaging wider products, having at least 20% higher denier than the HDPE flat thread used for the manufacture of the sheets. Joints and finished width shall be permitted as per Table-1. No joints, whatsoever, other than mentioned in the table shall be allowed.
- 3.5 In case 375 mm wide rolls for CR and galvanized coils, a coloured (red/blue/green/yellow) woven band, 25 mm wide, shall be provided centrally along the length which will guide the packer to use the sheets for checking against excessive/under overlapping.
- 3.6 The sheets and joints shall be water proof and free from visible defects.
- 3.7 The SAIL logo (75 x 75 mm) shall be printed at every ten metre interval with indelible ink. The words "SAIL/... Steel Plant" e.g. "SAIL/Bokaro Steel Plant" shall be printed below the SAIL logo in letter size 40 mm, in Hindi and English, in two rows on any one side. The identification of the HDPE Sheet manufacturer and lot number shall be at the beginning and at the end of each roll.
- 3.8 The sheet shall be supplied in rolls which shall have not be wet or contain entrapped moisture and shall have water proof packaging. The packet containing the rolls shall be marked with firm's complete identification, packet serial no., date of manufacture and net weight in black indelible ink.
- 3.9 The packaging shall withstand normal transit, handling and storage conditions.
- 3.10 Number of rolls/packet and specification of paper core required for winding finished HDPE sheets shall be as per the requirement of the user.
- 3.11 Natural white high impact resistance LDPE film, Grade 233, as per IS:2508-1984 "Low density polyethylene films (second revision)" shall be used for lamination.

TABLE - 1 REQUIREMENTS OF HDPE SHEETS FOR PACKAGING
(Clause 3.1)

Characteristics	For Packaging of				
	CR/ Galvanized Coils	CR Sheets	Tin Plates	Stainless Steel Sheets	Galvanized Sheets
Width (mm) Tolerance +3%, -0%	375	2200	1700	1000	2200
Length of sheet per roll (m) Tolerance +1%, -0%	100	100	100	25	100
Mesh Tolerance +5%, -0%	14x14	14x14	14x14	14x14	14x14
Denier Min.	800	800	800	800	800
No. of Joints	NIL	1(Max) central- ly along length	1(Max)	1(Max)	1(Max) central- ly along length
Lamination with LDPE film, 50 microns as per IS:2508-1984*	Separat- ely on each side	Separat- ely on each side	Separat- ely on each side	Separat- ely on each side	Separat- ely on each side

* IS:2508-1984 Low Density Polyethylene Films (second revision)'. .