

THE FERTILISERS AND CHEMICALS TRAVANCORE LIMITED

CORPORATE MATERIALS,
FACT PETROCHEMICAL DIVISION ADMN. BUILDING
UDYOGAMANDAL, KOCHI, KERALA, INDIA-683 501
TEL: 00 91 484 2568623 / 2568233
Email: manju@factltd.com ; kennedy@factltd.com

Global Pre-qualification of vendors for supply of PP bags

The Fertilisers and Chemicals Travancore Limited (FACT) invites applications from Manufacturers/Suppliers of Polypropylene (PP) bags for packing fertilisers, for Pre-qualification as vendors for supplies to FACT. Interested vendors will be given opportunity for discussion at FACT, Kochi. Please visit our website **www.fact.co.in** for details.

Dy. General Manager (Materials) RM1

CORPORATE MATERIALS
FACT PETROCHEMICAL DIVISION ADMINISTRATIVE BLDG.
(RAW MATERIALS PURCHASE)
UDYOGAMANDAL, KOCHI - 683 501
PH: 91 484 2568623/ 2568233

Pre-qualification of vendors for supply of PP bags

ENQUIRY NOTICE

The Fertilisers And Chemicals Travancore Limited (FACT) a Government of India enterprise, engaged in the production of fertilisers, requires about 250.00 lakh nos PP bags per annum for packing various types of fertilisers. Procurements will be done by online bidding system (e-tenders) through Central Public Procurement Portal of GOI (eprocure.gov.in).

Applications are invited for pre-qualification of vendors for supply of PP bags as above. Pre-qualification Criteria is enclosed as Annexure A. Manufacturers/Suppliers who can supply PP bags meeting FACT specifications and who meet the pre-qualification criteria as per Annexure A, may submit application for prequalification in the prescribed format as per Annexure I (Questionnaire for Pre-qualification of vendors Pre-qualification of vendors for PP bags). Application shall contain all details and documents called for in Annexure I.

Applications for pre-qualification as above, duly completed in all respects and attaching all the required supporting documents, shall be submitted to Deputy General Manager (RM), Corporate Materials, FACT Ltd, FACT Petrochemical Division Administration Building, Udyogamandal - 683 501, Kochi, Kerala, India”.

Applications received by email shall be considered as special case. Applications shall be mailed to following email id: kennedy@factltd.com/manju@factltd.com.

Note: Prospective vendors who apply or intend to apply for pre-qualification will be given opportunity for discussion on the subject to be held at FACT, Udyogamandal, Kochi, India.

Yours faithfully,

For THE FERTILISERS AND CHEMICALS TRAVANCORE LIMITED

Dy. General Manager (Materials) RM1

**APPLICATION FORM FOR PREQUALIFICATION OF VENDORS FOR SUPPLY OF
POLYPROPYLENE (PP) BAGS FOR PACKING FERTILISERS**

I. INSTRUCTIONS:

1. Please ensure that all the required data are furnished in the format given herein without any omission/ambiguity. Clarifications on data furnished may not be taken up with the applicants. Applications that are incomplete or ambiguous are liable to be rejected.
2. The details furnished shall be authentic. We reserve the right to verify correctness of the details given, by inspecting your premises and records. If any information furnished is found to be incorrect, the application is liable to be rejected, either during prequalification or after, without prior intimation.
3. We reserve the right to obtain and verify any additional information than those contained in the application form during or after pre-qualification.

II. PRE-QUALIFICATION CRITERIA

The criteria to be met by the bidders for the Pre- Qualification are as follows:

- a. The vendor should have supplied at least 40 (forty) lakh PP bags with outer lamination in one year during any one of the previous three years as on date of application. Please enclose Purchase Order copies and the corresponding invoices/certificate from buyers on satisfactory performance as proof of the above.
- b. The vendor should have own manufacturing facility to produce minimum 15,000 PP bags per day. Kindly furnish a declaration confirming the same and the statement showing the details of available machinery and other facilities. FACT reserves the right to verify the details through inspection at the manufacturer's works.
- c. Vendor should have all the facilities and equipment for conducting tests of the PP bags as per the approved standards. Kindly furnish a declaration confirming the same and a statement showing the details of available facilities and equipment. FACT reserves the right to verify the details through inspection at the manufacturer's works.

Yours faithfully

For THE FERTILISERS AND CHEMICALS TRAVANCORE LIMITED

Deputy General Manager (Materials) RM1

Annexure - I**VENDOR DATA UPDATION (DECLARATION) FORM FOR PREQUALIFICATION OF VENDOR
FOR SUPPLY OF PP BAGS FOR PACKING FERTILISERS**

	Description	To be filled in by vendor	
1.0	Name of the vendor		
1.1.0	Full address with PIN code of Registered office and Works.	Registered Office	Production Units (Works)
1.2.0	Telephone Numbers		
1.3.0	E-mail id		
1.4.0	Fax Numbers		
1.5.0	Contact Person		
1.6.0	Full address with PIN code (To which correspondences are to be sent)		
2.0.0	Company Particulars		
2.1.0	Constitution Proprietary/ Partnership/ Private Ltd/ Public Ltd/ Public Sector (If Proprietary / Partnership, names of Proprietor/ Partners)	(Please furnish documentary proof)	
	Good and Service Tax Registration (GST)	(Yes/No)	Please Enclose copy
	Permanent Account Number (PAN) Card.	(Yes/No)	Please Enclose copy
	Whether SSI/ Govt. Depts /firms/public sector units/ Startups recognized by Dept. of Industrial policy & Promotion, Micro, Small Enterprise units registered under MSMED Act/ firms registered under NSIC/Khadi Board	(Yes/No)	Please Enclose copy
	Whether ISO Certified/ approved by the Bureau of Indian standard or any Ill party inspection agency	(Yes/No)	Please provide documentary evidence if yes
	Whether manufacturing is done directly or subcontracted	(Yes/No)	- do -

2.2.0	Number of Employees					
	Technical Executives (Graduate in Engineering/ textile / Polymer Technology)		Please specify separately			
	Non-Technical Executives					
	Skilled workers					
	Un-Skilled workers					
	Name, address, telephone email id & fax nos. of Chief executive					
2.3.0	Name and address of Bidder's Bankers (Please enclose copies of certificate of credit worthiness and credit limit certificates from your bankers)					
2.4.0	Please enclose audited Balance Sheet for last 3 financial years					
2.5.0	Details of major orders for PP bags supplied during last 3 years as below to verify conformity with the Pre-qualification criteria					
	Year	Description of the bags	Name of the buyer/s	Quantity (in lakh)	Date of Order	Value (Rs.)
2.5.1	Copies of purchase orders and corresponding invoices / Certificate from buyers on satisfactory performance shall be enclosed in support of details in para 2.5.0 above. Applications without furnishing the above details and without supporting documents in conformity with the pre-qualification criteria are liable for rejection.					
2.6.0	Sales turn over during the 3 financial years					
		QTY. in numbers		Value in Rs.		
	Period	Total for all products	For PP bags alone	Total for all products	For PP bags alone	
3.0.0	Do you have any associate firm manufacturing various types of bags. If yes give the following details (use additional sheets if there are more than one)					

3.1.0	Name and address			
3.2.0	Constitution			
3.3.0	Names of common partners / Directors			
3.4.0	Whether SSI, if YES give details of NSIC registration.			
3.5.0	Turn over for the last three financial years			
	Year	Turnover in Rs.		
3.5.1				
3.5.2				
3.5.3				
3.6.0	Product details			
3.7.0	Please give Chartered Accountant's certificate, certifying that the firms mentioned at above are your associate firms.			
4.0.0	Manufacturing facilities:			
4.1.0	Please furnish details of manufacturing facilities for making outer laminated PP bags to verify conformity with the Pre-qualification criteria. (In case more than one production unit, please provide details for each unit in separate sheet as per the following format)			
4.1.1	Machinery	No. of machines available in working condition	Capacity of each m/c (per day)	Capacity of the m/c (in terms of no. of bags per day and month)
4.1.2	Tubing machine		... ..... Kg/day	
4.1.3	Extruders: (a)T-dye (b)Round dye		... ..... Kg/day.....Kg/day	
4.1.4	Winding Machine			
4.1.5	Circular looms		..... mts./day	
4.1.6	Extrusion coating (lamination) Plants		..... mts./day	
4.1.7	Liner extruders		... ..... Kg/day	

4.1.8	Cutting machines		..... bags/day	
4.1.9	Sewing machines		..... bags/day	
4.1.10	Printing Machines		..... bags/day	
4.1.11	Baling Machines			
4.1.12	Diesel Generators/Captive Power Plants		.....KVA	
4.1.13	Eqpt. connected to diesel Generators/CPP			
4.1.14	Any other equipment available			
4.2.0	Manufacturing capacity in terms of the number of outer laminated PP bags per day using the above facilities		..... bags / day	
5.0.0	Quality Control Facilities			
5.1.0	Quality control facilities and machinery. Please list out the facilities and machinery available to ensure manufacturing of PP bags as per our specification. Copies of documents used for internal Quality control for stage-wise quality control (Please use additional sheets if required)			
6.0.0	Source of Raw Materials			
6.1.0	PP			
6.2.0	HMHDPE			
6.3.0	PRINTING INK			
6.4.0	STEREO FOR PRINTING			
6.5.0	STITCHING THREAD			
6.6.0	Types of Master batches used & sources			
7.0.0	General			
7.1.0	What is the distance of your works Manufacturing PP bags from Kochi and transit time required for a truckload to reach Kochi from your works?		Distance : Kms. Transit Time :..... days.	
7.2.0	Have you ever been blacklisted by any Govt.Dept, Public Sector, Quasi Govt. Undertaking, etc... If so, please furnish the details.			

8.0.0	CHECKLIST FOR ENCLOSURES (Please check and confirm attachment of the following documents):	
8.1.0	Documents in proof of your Organisations's Constitution	Yes/No
8.2.0	Copies of GST Regn. Certificate :	Yes/No
8.3.0	Copy of Income Tax Return for previous three years	Yes/No
8.4.0	Proof of valid registration certificates under SSI / MSEs / NSIC / Khadi Board etc.	Yes/No
8.5.0	Proof of ISO Certification / BIS approval and / or approval by reputed Ill Party Inspection Agency.	Yes/No
8.6.0	Certificate of Credit worthiness and credit limit certificate from your bankers.	Yes/No
8.7.0	Chartered Accountant's Certificate on associate firms	Yes/No
8.8.0	Latest 3 years balance sheets Profit & Loss Account for previous 3 years	Yes/No
8.9.0	Major Purchase Order copies and corresponding invoices or Certificates on satisfactory performance as proof for completion from buyers, pertaining to the last three financial years	Yes/No

Note: In case the vendor has more than one production unit and the combined capacity of all such units is considered as assessed capacity of the vendor, then the capacity of such production units shall not be considered for the pre-qualification of their sister concerns if any. In case sister concerns under the same management would like to be pre-qualified they shall apply separately and should conform to the pre-qualification criteria and other requirements independently.

We certify that all information furnished by us in this application form is correct and true. In the event that the information given is found to be incorrect /untrue, FACT shall have the right to disqualify us or remove us from FACT's vendor lists without giving any notice or reason thereof.

Place :

Date :

Signature :

Name of the authorized signatory:

Seal :

TECHNICAL PROCUREMENT SPECIFICATION (TPS)

FOR

OUTSIDE LAMINATED POLYPROPYLENE (PP) BAGS

FOR

PACKING ORGANIC MANURE

FACT UDYOGAMANDAL COMPLEX

KOCHI

INDIA

TPS No. UCTS/TPS/2021-01 R0

**FACT****FACT UDYOGAMANDAL COMPLEX****UCTS/TPS/2021-01
R0****TECHNICAL
PROCUREMENT
SPECIFICATION****OUTSIDE LAMINATED POLYPROPYLENE (PP)
BAGS WOVEN ON CIRCULAR LOOMS FOR
PACKING ORGANIC MANURE****PAGE 1 of 5**


No	Description	Details
1.0	INSIDE DIMENSIONS	1000 MM X 610 MM
1.1	TOLERANCE	+ 30 MM, -0.00 (-NIL ON BOTH WIDTH AND LENGTH.)
2.0	CAPACITY	50 KGS.
3.0	BAG WEIGHT	
3.1	WEIGHT OF INDIVIDUAL BAG	182 GMS. TOLERANCE \pm 3%
3.2	WEIGHT OF A BALE (250 BAGS)	45.5 KGS. (NET WT.) TOLERANCE +3%/- 0.00% (No negative tolerance)
4.0	BREAKING STRENGTH	TESTING OF BREAKING STRENGTH SHALL BE DONE USING RAVELLED STRIP METHOD (CONSTANT RATE OF TRAVERSE) AND THE RATE OF TRAVERSE SHALL BE 300 MM / MINUTE.
4.1	i) WIDTHWISE ii) WIDTHWISE (Lamination Joint)	91.8 KGF 91.8 KGF
4.2	LENGTHWISE	91.8 KGF
4.3	BOTTOM SEAM	40.8 KGF
5.0	DROP TEST	THE DROP TEST SHALL BE CARRIED OUT FOR EACH LOT SUPPLIED BY THE BAG SUPPLIER. FOR THIS TEST 4 nos. BAGS SHALL BE RANDOMLY SELECTED FROM EACH LOT. ALL BAGS SHALL BE SUBJECTED TO DROP TEST FROM A HEIGHT OF 3M FROM BOTH SIDES (4 DROP PER BAG). BAGS DURING DROP TEST WILL DROPPED ON THE STOMACH. NO BAGS SHOULD RUPTURE WHEN SUBJECTED TO MINIMUM 04 NOS. DROPS.
6.0	FABRIC	BAGS MADE OUT OF SINGLE PIECE OF LAMINATED PP FABRIC WOVEN ON CIRCULAR LOOM AS PER IS 9755. ANY MIDDLE SEWN OR JOINTED BAGS WILL NOT BE ACCEPTABLE. THE FABRIC USED SHALL BE FREE FROM ALL MAJOR WEAVING DEFECTS LIKE GAPS, PICK POINTS, MISSING TAPES ETC. PP GRANULE

0	08/03/21	NIBU	VIMALA	NAGESH
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**FACT****FACT UDYOGAMANDAL COMPLEX****UCTS/TPS/2021-01
R0****TECHNICAL
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BAGS WOVEN ON CIRCULAR LOOMS FOR
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		FOR FABRIC & UV MASTER BATCH- Grade H030SG OR EQUIVALENT . MIN 3% of 20% UV MASTER BATCH TO BE USED AND THE PP WOVEN FABRIC OF SACK SHALL BE MADE OUT OF UV STABILISED MATERIAL AND SHALL HAVE AT LEAST 50% OF ORIGINAL BREAKING STRENGTH WHEN TESTED AFTER THE SAME HAS BEEN EXPOSED TO UV RADIATION AND WEATHERING AS PER METHOD GIVEN IN ANNEXURE-D OF IS 9755 : 2016. FABRIC COLOUR-MILKY WHITE WITH BLUE TONE.
6.1	TAPE	MONOAXIALLY ORIENTED PP TAPES HAVING 1000 DENIER AND MINIMUM WIDTH OF 2.5MM. THE FABRIC SHALL BE WOVEN FROM PP TAPES CONFORMING TO IS: 11197 . THE ELONGATION OF TAPES WHILE TESTING BREAKING STRENGTH SHALL BE IN THE RANGE OF 15 to 25%. TOLERANCE FOR DENIER: $\pm 10\%$ DENIER.
6.2	MESH	10 x 10 PER SQ. INCH.
6.3	ENDS PER DM	40. TOLERANCE ± 2
6.4	PICKS PER DM	40. TOLERANCE ± 2
6.5	ELONGATION AT BREAK OF FABRIC	(5.0 CM X 20 CM STRIP METHOD)
6.5.1	LENGTHWISE	20%
6.5.2	WIDTHWISE	20%
6.5.3	TOLERANCE	RANGE: 15 to 25 % ON BOTH WIDTHWISE & LENGTHWISE.
7.0	LAMINATION	FABRIC SHALL BE LAMINATED OUTSIDE WITH PP GRANULES (PP GRADE LAMINATION- H350EG/H350FG OR EQUIVALENT) 23 GMS/M ² (CORRESPONDING TO 100 GAUGE NOMINAL) WITH AN OVERLAP/OVERHANG OF 5- 15MM. VIRGIN PP GRANULES SHALL BE USED AND THE LAMINATION SHALL BE FREE FROM PIN HOLES, PATCHES, BLISTERS, TEARS ETC. THE LAMINATION SHOULD COVER THE ENTIRE OUTSIDE AREA OF THE FABRIC USED. COLOR OF LAMINATION OF BAGS SHALL BE TRANSPARENT
8.0	LINER	i. COLOUR : WHITE ii. HMHDPE WITH THICKNESS 40 MICRONS $\pm 10\%$ tolerance

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		iii. LENGTH-1040 MM X WIDTH-630 MM iv. HMHDPE GRADE-F55HM0003 or EQUIVALENT (Liner and fabric should be stitched together at bottom).
9.0	BAG MOUTH	NEATLY SCISSOR CUT. EDGES SHOULD NOT BE ROUGH.
10.0	BRANDING/PRINTING	AS PER MONOGRAM SPECIFIED BY FACT. THE FOLLOWING INK (FERTILISER GRADE) SHALL BE USED: HINDUSTAN INK BY HINDUSTAN INKS AND RESINS LTD., DAMAN.OR VARSHA INK OF VARSHA PRINTING INK MFG. CO., NAGPUR. SHADE OF THE BRANDING SHALL BE UNIFORM AND MATCHING FACT'S REQUIREMENTS.
		<p>THE INK USED SHOULD HAVE SCRATCH RESISTANT AIDS, GLOSSY, HIGH TECH/ POLYAMIDE QUALITY, ALKALI RESISTANT, SMUDGE FREE, BRIGHT IN COLOR, SHOULD NOT SMEAR IN CONTACT WITH WATER AND SHOULD NOT AFFECT THE FABRIC. ART WORK WILL BE PROVIDED BY FACT. PRINTING QUALITY SHALL BE CORONA TREATED SCUFF RESISTANT/VERY SHARP PRINT,NAIL PROOF/TAPE PROOF & EVEN COLORS THROUGHOUT THE LOT(PREFERABLY POLYAMIDE) ON ROLL TO ROLL PRINTING MACHINE. 3 SAMPLES OF THE BAGS OF THE REQUIRED COLOUR AS PER FACT REQUIREMENT SHALL BE SUBMITTED BEFORE STARTING BULK MANUFACTURING OF BAGS.ALL THE SAMPLES WILL BE SIGNED AND APPROVED SAMPLE WILL BE RETURNED WITH SIGNATURE OF THE AUTHORIZED REPRESENTATIVE OF FACT. ANY LOT SUPPLIED, IF FOUND DEVIATING IN COLOUR AS COMPARED TO APPROVED COLOUR WILL NOT BE ACCEPTED.</p> <p>EACH SACK SHALL BE COMPULSORILY MARKED WITH VISIBLE RECYCLING LOGO (PP) AS SHOWN IN IS 9755:2016, ON THE BOTTOM OF THE BAG.</p> <p>THE ENTIRE LOT OF PP BAGS SHALL BE LIABLE FOR REJECTION IN CASE THE TEST SAMPLES FAIL TO PASS THE TAPE TEST, ALKALI TEST AND STANDARD TEST FOR ABRASION RESISTANCE OF PRINTED MATERIALS BY SUTHERLAND RUB TESTER: AS PER ASTM D5264-98(RE APPROVED 2004)</p>
11.0	STITCHING	SINGLE FOLD, DOUBLE STITCH AT BOTTOM WITH UV STABILISED THREAD/MULTIFILAMENT YARN OF 1200 DENIER.

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		STITCHING SHALL BE DONE AS PRESCRIBED IN IS 9755. FOLD SHOULD OCCUR ON THE OPPOSITE SIDE OF THE PRINTING MADE ON THE BAG.
12.0	PACKING	250 BAGS IN A BALE. BALES SHALL BE WRAPPED WITH HDPE/PP FABRIC OR HESSIAN CLOTH AND STITCHED PROPERLY TO WITHSTAND HAZARDS OF TRANSPORTATION. EACH BALE SHALL BE MARKED WITH NAME OF SUPPLIER, TYPE AND SIZE OF BAG, SERIAL NO. OF BALE, NO. OF BAGS IN THE BALE AND THE BALE WEIGHT
13.0	ASH CONTENT	ALL THE LOTS SUPPLIED SHALL BE TESTED FOR ASH CONTENT WHICH INCLUDES MAINLY CALCIUM CARBONATE CONTENT. ASH CONTENT IN BAGS SHALL BE 2.2% MAX (INCLUDING ALL IMPURITIES). IN CASE ASH CONTENT IS ABOVE 2.2% THE LOT WILL BE REJECTED. SAMPLES SHALL BE TAKEN OUT FROM THE LOT AS SPECIFIED IN IS 9755:2016 FOR TESTING ASH CONTENT
14.0	CRITERIA FOR CONFORMITY	THE LOT SHALL BE CONSIDERED AS CONFORMING TO THE REQUIREMENTS FOR ACCEPTANCE IF ALL THE FOLLOWING CONDITIONS ARE SATISFIED.
	i. THE NUMBER OF DEFECTIVE SACKS IN CASE OF VISUAL INSPECTIONS, ENDS, PICKS AND DIMENSIONS IS UP TO 10% OF THE SAMPLE SIZE AFTER ROUNDING OFF THE FRACTION TO NEXT HIGHER INTEGER. ii. NONE OF THE SACK OR BALE OF 250 SACKS WEIGHS LESS THAN THE RESPECTIVE LOWER SPECIFIED LIMIT. HIGHER WEIGHT CAN BE ACCEPTED iii. THE AVERAGE BREAKING STRENGTH OF FABRIC IN BOTH LENGTHWISE, WIDTHWISE AND WIDTHWISE (LAMINATION JOINT) IS NOT LESS THAN THE VALUE SPECIFIED AND NONE OF THE INDIVIDUAL VALUES IS MORE THAN 10% BELOW THE SPECIFIED VALUE. THE SAMPLES SELECTED FOR BREAKING STRENGTH TESTS SHALL BE FREE FROM DEFECTS IN VISUAL INSPECTION, DIMENSIONS, ENDS, PICKS AND MASS REQUIREMENTS. iv. THE AVERAGE BREAKING STRENGTH OF THE FABRIC AT BOTTOM SEAM IS NOT LESS THAN THE VALUE SPECIFIED AND NONE OF THE INDIVIDUAL BAG VALUE IS	

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	<p>MORE THAN 10% BELOW THE SPECIFIED VALUE. THE SAMPLE SELECTED FOR SEAM STRENGTH TESTS SHALL BE FREE FROM DEFECTS IN VISUAL INSPECTION, DIMENSIONS, ENDS, PICKS AND MASS REQUIREMENTS.</p> <p>v. NONE OF THE SAMPLE SACKS SHALL HAVE PERCENTAGE ELONGATION AND ASH CONTENT OUTSIDE THE SPECIFIED RANGE</p> <p>vi. NONE OF THE PP SACK SAMPLES AFTER EXPOSING TO UV RADIATION AND WEATHERING SHALL HAVE BREAKING STRENGTH LESS THAN 50 PERCENT OF THE ORIGINAL BREAKING STRENGTH.</p> <p>vii. NONE OF THE PP SACK SAMPLES SHALL FAIL IN THE DROP TEST</p> <p>viii. NONE OF THE PP SACK TEST SAMPLES SHALL FAIL IN THE TAPE TEST, ALKALI TEST AND STANDARD TEST FOR ABRASION RESISTANCE OF PRINTED MATERIALS BY SUTHERLAND RUB TESTER: AS PER ASTM D5264-98 (RE APPROVED 2004)</p>	
15.0	APPLICABLE STANDARD	APPLICABLE STANDARD SHALL BE IS 9755: 2016 FOR PP WOVEN SACKS FOR PACKING FERTILISERS. HOWEVER, IN CASES WHERE REQUIREMENTS IN THIS SPECIFICATION DIFFER FROM THOSE IN IS 9755:2016, REQUIREMENTS IN THIS SPECIFICATION SHALL PREVAIL OVER THOSE IN IS.9755:2016.

(Ref.-TPS No. PP bag ORGANIC spec (R6)dt.27/01/2020)

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FOR

OUTSIDE LAMINATED POLYPROPYLENE (PP) BAGS

FOR

PACKING FACTAMFOS

FACT UDYOGAMANDAL COMPLEX

KOCHI


INDIA

TPS No. UCTS/TPS/2020-06 R0

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No	Description	Details
1.0	INSIDE DIMENSIONS	915 MM X 610 MM
1.1	TOLERANCE	+ 30 MM, -0.00 (-NIL ON BOTH WIDTH AND LENGTH.)
2.0	CAPACITY	50 KGS.
3.0	BAG WEIGHT	
3.1	WEIGHT OF INDIVIDUAL BAG	130 GMS. TOLERANCE $\pm 3\%$
3.2	WEIGHT OF A BALE (350 BAGS)	45.5 KGS. (NET WT.) TOLERANCE +3%/- 0.00% (No negative tolerance)
4.0	BREAKING STRENGTH	TESTING OF BREAKING STRENGTH SHALL BE DONE USING RAVELLED STRIP METHOD (CONSTANT RATE OF TRAVERSE) AND THE RATE OF TRAVERSE SHALL BE 300 MM/MINUTE.
4.1	i) WIDTHWISE ii) WIDTHWISE (Lamination Joint)	91.8 KGF 91.8 KGF
4.2	LENGTHWISE	91.8 KGF
4.3	BOTTOM SEAM	40.8 KGF
5.0	DROP TEST	THE DROP TEST SHALL BE CARRIED OUT FOR EACH LOT SUPPLIED BY THE BAG SUPPLIER. FOR THIS TEST 4 nos. BAGS SHALL BE RANDOMLY SELECTED FROM EACH LOT. ALL BAGS SHALL BE SUBJECTED TO DROP TEST FROM A HEIGHT OF 3 MTRS FROM BOTH SIDES (4 DROP PER BAG). BAGS DURING DROP TEST WILL DROPPED ON THE STOMACH. NO BAGS SHOULD RUPTURE WHEN SUBJECTED TO MINIMUM 04 NOS. DROPS.
6.0	FABRIC	BAGS MADE OUT OF SINGLE PIECE OF LAMINATED PP FABRIC WOVEN ON CIRCULAR LOOM AS PER IS 9755. ANY MIDDLE SEWN OR JOINTED BAGS WILL NOT BE ACCEPTABLE. THE FABRIC USED SHALL BE FREE FROM ALL MAJOR WEAVING DEFECTS LIKE GAPS, PICK POINTS, MISSING TAPES ETC. PP GRANULE

0	01/08/20	ENQUIRY	NIBU	VIMALA	K.REDDY
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		FOR FABRIC & UV MASTER BATCH- Grade H030SG OR EQUIVALENT . MIN 3% of 20% UV MASTER BATCH TO BE USED AND THE PP WOVEN FABRIC OF SACK SHALL BE MADE OUT OF UV STABILISED MATERIAL AND SHALL HAVE AT LEAST 50% OF ORIGINAL BREAKING STRENGTH WHEN TESTED AFTER THE SAME HAS BEEN EXPOSED TO UV RADIATION AND WEATHERING AS PER METHOD GIVEN IN ANNEXURE-D OF IS 9755 /2016. FABRIC COLOUR-MILKY WHITE WITH BLUE TONE.
6.1	TAPE	MONOAXIALLY ORIENTED PP TAPES HAVING 1000 DENIER AND MINIMUM WIDTH OF 2.5MM. THE FABRIC SHALL BE WOVEN FROM PP TAPES CONFORMING TO IS: 11197 . THE ELONGATION OF TAPES WHILE TESTING BREAKING STRENGTH SHALL BE IN THE RANGE OF 15 to 25%. TOLERANCE FOR DENIER: $\pm 10\%$ DENIER.
6.2	MESH	10 x 10 PER SQ. INCH.
6.3	ENDS PER DM	40. TOLERANCE ± 2
6.4	PICKS PER DM	40. TOLERANCE ± 2
6.5	ELONGATION AT BREAK OF FABRIC	(5.0 CM X 20 CM STRIP METHOD)
6.5.1	LENGTHWISE	20%
6.5.2	WIDTHWISE	20%
6.5.3	TOLERANCE	RANGE: 15 to 25 % ON BOTH WIDTHWISE & LENGTHWISE.
7.0	LAMINATION	FABRIC SHALL BE LAMINATED OUTSIDE WITH PP GRANULES (GRADE H350EG/H350FG OR EQUIVALENT) 23 GMS/M ² (CORRESPONDING TO 100 GAUGE NOMINAL) WITH AN OVERLAP/OVERHANG OF 5- 15MM. VIRGIN PP GRANULES SHALL BE USED AND THE LAMINATION SHALL BE FREE FROM PIN HOLES, PATCHES, BLISTERS, TEARS ETC. THE LAMINATION SHOULD COVER THE ENTIRE OUTSIDE AREA OF THE FABRIC USED. COLOR OF LAMINATION OF BAGS SHALL BE TRANSPARENT
8.0	BAG MOUTH	NEATLY SCISSOR CUT. EDGES SHOULD NOT BE ROUGH

0	01/08/20	ENQUIRY	NIBU	VIMALA	K.REDDY
REV. NO.	DATE	STATUS	PREP'D	CHECKED	APPR'D

 FACT	FACT UDYOGAMANDAL COMPLEX	UCTS/TPS/2020-06 R0
TECHNICAL PROCUREMENT SPECIFICATION	OUTSIDE LAMINATED POLYPROPYLENE (PP) BAGS WOVEN ON CIRCULAR LOOMS FOR PACKING FACTAMFOS	PAGE 3 of 5


9.0	BRANDING/PRINTING	DOUBLE COLOUR, SINGLE SIDE AS PER MONOGRAM SPECIFIED BY FACT. THE FOLLOWING INK (FERTILISER GRADE) SHALL BE USED: HINDUSTAN INK BY HINDUSTAN INKS AND RESINS LTD., DAMAN.OR VARSHA INK OF VARSHA PRINTING INK MFG. CO., NAGPUR. SHADE OF THE BRANDING SHALL BE UNIFORM AND MATCHING FACT'S REQUIREMENTS.
		<p>THE INK USED SHOULD HAVE SCRATCH RESISTANT AIDS, GLOSSY, HIGH TECH/ POLYAMIDE QUALITY, ALKALI RESISTANT, SMUDGE FREE, BRIGHT IN COLOR, SHOULD NOT SMEAR IN CONTACT WITH WATER AND SHOULD NOT AFFECT THE FABRIC. ART WORK WILL BE PROVIDED BY FACT. PRINTING QUALITY SHALL BE CORONA TREATED SCUFF RESISTANT/VERY SHARP PRINT,NAIL PROOF/TAPE PROOF & EVEN COLORS THROUGHOUT THE LOT(PREFERABLY POLYAMIDE) ON ROLL TO ROLL PRINTING MACHINE. 3 SAMPLES OF THE BAGS OF THE REQUIRED COLOUR AS PER FACT REQUIREMENT SHALL BE SUBMITTED BEFORE STARTING BULK MANUFACTURING OF BAGS.ALL THE SAMPLES WILL BE SIGNED AND APPROVED SAMPLE WILL BE RETURNED WITH SIGNATURE OF THE AUTHORIZED REPRESENTATIVE OF FACT. ANY LOT SUPPLIED, IF FOUND DEVIATING IN COLOUR AS COMPARED TO APPROVED COLOUR WILL NOT BE ACCEPTED.</p> <p>EACH SACK SHALL BE COMPULSORILY MARKED WITH VISIBLE RECYCLING LOGO (PP) AS SHOWN IN IS 9755:2016, IN THE BOTTOM OF THE BAG.</p> <p>THE ENTIRE LOT OF PP BAGS SHALL BE LIABLE FOR REJECTION IN CASE THE TEST SAMPLES FAIL TO PASS THE TAPE TEST, ALKALI TEST AND STANDARD TEST FOR ABRASION RESISTANCE OF PRINTED MATERIALS BY SUTHERLAND RUB TESTER: AS PER ASTM D5264-98(RE APPROVED 2004)</p>
10.0	STITCHING	SINGLE FOLD, DOUBLE STITCH WITH UV STABILISED THREAD/ MULTIFILAMENT YARN OF 1200 DENIER. STITCHING SHALL BE DONE AS PRESCRIBED IN IS 9755. FOLD SHOULD OCCUR ON THE OPPOSITE SIDE OF THE PRINTING MADE ON THE BAG.
11.0	PACKING	350 BAGS IN A BALE. BALES SHALL BE WRAPPED WITH HDPE/PP FABRIC OR HESSIAN CLOTH AND STITCHED PROPERLY TO WITHSTAND HAZARDS OF TRANSPORTATION. EACH BALE SHALL BE MARKED WITH NAME OF SUPPLIER, TYPE AND SIZE OF BAG, SERIAL NO. OF BALE, NO. OF BAGS IN THE BALE AND THE BALE WEIGHT

0	01/08/20	ENQUIRY	NIBU	VIMALA	K.REDDY
REV. NO.	DATE	STATUS	PREP'D	CHECKED	APPR'D

**FACT****FACT UDYOGAMANDAL COMPLEX****UCTS/TPS/2020-06
R0****TECHNICAL
PROCUREMENT
SPECIFICATION****OUTSIDE LAMINATED POLYPROPYLENE (PP)
BAGS WOVEN ON CIRCULAR LOOMS FOR
PACKING FACTAMFOS****PAGE 4 of 5**

12.0	ASH CONTENT	ALL THE LOTS SUPPLIED SHALL BE TESTED FOR ASH CONTENT WHICH INCLUDES MAINLY CALCIUM CARBONATE CONTENT. ASH CONTENT IN BAGS SHALL BE 2.2% MAX (INCLUDING ALL IMPURITIES). IN CASE ASH CONTENT IS ABOVE 2.2% THE LOT WILL BE REJECTED. SAMPLES SHALL BE TAKEN OUT FROM THE LOT AS SPECIFIED IN IS 9755:2016 FOR TESTING ASH CONTENT
13.0	CRITERIA FOR CONFORMITY	THE LOT SHALL BE CONSIDERED AS CONFORMING TO THE REQUIREMENTS FOR ACCEPTANCE IF ALL THE FOLLOWING CONDITIONS ARE SATISFIED.
	<ul style="list-style-type: none"> i. THE NUMBER OF DEFECTIVE SACKS IN CASE OF VISUAL INSPECTIONS, ENDS, PICKS AND DIMENSIONS IS UP TO 10% OF THE SAMPLE SIZE AFTER ROUNDING OFF THE FRACTION TO NEXT HIGHER INTEGER. ii. NONE OF THE SACK OR BALE OF 350 SACKS WEIGHS LESS THAN THE RESPECTIVE LOWER SPECIFIED LIMIT. HIGHER WEIGHT CAN BE ACCEPTED iii. THE AVERAGE BREAKING STRENGTH OF FABRIC IN BOTH LENGTHWISE, WIDTHWISE AND WIDTHWISE (LAMINATION JOINT) IS NOT LESS THAN THE VALUE SPECIFIED AND NONE OF THE INDIVIDUAL VALUES IS MORE THAN 10% BELOW THE SPECIFIED VALUE. THE SAMPLES SELECTED FOR BREAKING STRENGTH TESTS SHALL BE FREE FROM DEFECTS IN VISUAL INSPECTION, DIMENSIONS, ENDS, PICKS AND MASS REQUIREMENTS. iv. THE AVERAGE BREAKING STRENGTH OF THE FABRIC AT BOTTOM SEAM IS NOT LESS THAN THE VALUE SPECIFIED AND NONE OF THE INDIVIDUAL BAG VALUE IS MORE THAN 10 PERCENT BELOW THE SPECIFIED VALUE. THE SAMPLE SELECTED FOR SEAM STRENGTH TESTS SHALL BE FREE FROM DEFECTS IN VISUAL INSPECTION, DIMENSIONS, ENDS, PICKS AND MASS REQUIREMENTS. v. NONE OF THE SAMPLE SACKS SHALL HAVE PERCENTAGE ELONGATION AND ASH CONTENT OUTSIDE THE SPECIFIED RANGE vi. NONE OF THE PP SACK SAMPLES AFTER EXPOSING TO UV RADIATION AND WEATHERING SHALL HAVE BREAKING STRENGTH LESS THAN 50 PERCENT OF THE ORIGINAL BREAKING STRENGTH. vii. NONE OF THE PP SACK SAMPLES SHALL FAIL IN THE DROP TEST 	

0	01/08/20	ENQUIRY	NIBU	VIMALA	K.REDDY
REV. NO.	DATE	STATUS	PREP'D	CHECKED	APPR'D

 FACT	FACT UDYOGAMANDAL COMPLEX	UCTS/TPS/2020-06 R0
TECHNICAL PROCUREMENT SPECIFICATION	OUTSIDE LAMINATED POLYPROPYLENE (PP) BAGS WOVEN ON CIRCULAR LOOMS FOR PACKING FACTAMFOS	PAGE 5 of 5

	viii. NONE OF THE PP SACK TEST SAMPLES SHALL FAIL IN THE TAPE TEST, ALKALI TEST AND STANDARD TEST FOR ABRASION RESISTANCE OF PRINTED MATERIALS BY SUTHERLAND RUB TESTER: AS PER ASTM D5264-98 (RE APPROVED 2004)	
14.0	APPLICABLE STANDARD	APPLICABLE STANDARD SHALL BE IS 9755: 2016 FOR PP WOVEN SACKS FOR PACKING FERTILISERS. HOWEVER, IN CASES WHERE REQUIREMENTS IN THIS SPECIFICATION DIFFER FROM THOSE IN IS 9755:2016, REQUIREMENTS IN THIS SPECIFICATION SHALL PREVAIL OVER THOSE IN IS 9755:2016.

0	01/08/20	ENQUIRY	NIBU	VIMALA	K.REDDY
REV. NO.	DATE	STATUS	PREP'D	CHECKED	APPR'D

TECHNICAL PROCUREMENT SPECIFICATION (TPS)

FOR

OUTSIDE LAMINATED POLYPROPYLENE (PP) BAGS

FOR

PACKING AMMONIUM SULPHATE

FACT UDYOGAMANDAL COMPLEX

KOCHI

INDIA

TPS No. UCTS/TPS/2020-02 R1

**FACT****FACT UDYOGAMANDAL COMPLEX****UCTS/TPS/2020-02
R1****TECHNICAL
PROCUREMENT
SPECIFICATION****OUTSIDE LAMINATED POLYPROPYLENE (PP)
BAGS WOVEN ON CIRCULAR LOOMS FOR
PACKING AMMONIUM SULPHATE****PAGE 1 of 5**


No	Description	Details
1.0	INSIDE DIMENSIONS	889 MM X 533 MM
1.1	TOLERANCE	+ 30 MM, -0.00 (-NIL ON BOTH WIDTH AND LENGTH.)
2.0	CAPACITY	50 KGS.
3.0	BAG WEIGHT	
3.1	WEIGHT OF INDIVIDUAL BAG	115 GMS. TOLERANCE \pm 3%
3.2	WEIGHT OF A BALE (400 BAGS)	46.0 KGS. (NET WT.) TOLERANCE +3%/- 0.00% (No negative tolerance)
4.0	BREAKING STRENGTH	TESTING OF BREAKING STRENGTH SHALL BE DONE USING RAVELLED STRIP METHOD (CONSTANT RATE OF TRAVERSE) AND THE RATE OF TRAVERSE SHALL BE 300 MM/MINUTE.
4.1	i) WIDTHWISE ii) WIDTHWISE (Lamination Joint)	91.8 KGF 91.8 KGF
4.2	LENGTHWISE	91.8 KGF
4.3	BOTTOM SEAM	40.8 KGF
5.0	DROP TEST	THE DROP TEST SHALL BE CARRIED OUT FOR EACH LOT SUPPLIED BY THE BAG SUPPLIER. FOR THIS TEST 4 nos. BAGS SHALL BE RANDOMLY SELECTED FROM EACH LOT. ALL BAGS SHALL BE SUBJECTED TO DROP TEST FROM A HEIGHT OF 3 MTRS FROM BOTH SIDES (4 DROP PER BAG). BAGS DURING DROP TEST WILL DROPPED ON THE STOMACH. NO BAGS SHOULD RUPTURE WHEN SUBJECTED TO MINIMUM 04 NOS. DROPS.
6.0	FABRIC	BAGS MADE OUT OF SINGLE PIECE OF LAMINATED PP FABRIC WOVEN ON CIRCULAR LOOM AS PER IS 9755. ANY MIDDLE SEWN OR JOINTED BAGS WILL NOT BE ACCEPTABLE. THE FABRIC USED SHALL BE FREE FROM ALL MAJOR WEAVING DEFECTS LIKE GAPS, PICK POINTS, MISSING TAPES ETC. PP GRANULE

1	01/8/20	ENQUIRY (REVISED)	NIBU	VIMALA	K.REDDY
0	17/2/20	ENQUIRY	NIBU	VIMALA	NAGESH
REV. NO.	DATE	STATUS	PREP'D	CHECKED	APPR'D

**FACT****FACT UDYOGAMANDAL COMPLEX****UCTS/TPS/2020-02
R1****TECHNICAL
PROCUREMENT
SPECIFICATION****OUTSIDE LAMINATED POLYPROPYLENE (PP)
BAGS WOVEN ON CIRCULAR LOOMS FOR
PACKING AMMONIUM SULPHATE****PAGE 2 of 5**

		FOR FABRIC & UV MASTER BATCH- Grade H030SG OR EQUIVALENT . MIN 3% of 20% UV MASTER BATCH TO BE USED AND THE PP WOVEN FABRIC OF SACK SHALL BE MADE OUT OF UV STABILISED MATERIAL AND SHALL HAVE AT LEAST 50% OF ORIGINAL BREAKING STRENGTH WHEN TESTED AFTER THE SAME HAS BEEN EXPOSED TO UV RADIATION AND WEATHERING AS PER METHOD GIVEN IN ANNEXURE-D OF IS 9755 /2016. FABRIC COLOUR-MILKY WHITE WITH BLUE TONE.
6.1	TAPE	MONOAXIALLY ORIENTED PP TAPES HAVING 1000 DENIER AND MINIMUM WIDTH OF 2.5MM. THE FABRIC SHALL BE WOVEN FROM PP TAPES CONFORMING TO IS: 11197 . THE ELONGATION OF TAPES WHILE TESTING BREAKING STRENGTH SHALL BE IN THE RANGE OF 15 to 25%. TOLERANCE FOR DENIER: $\pm 10\%$ DENIER.
6.2	MESH	10 x 10 PER SQ. INCH.
6.3	ENDS PER DM	40. TOLERANCE ± 2
6.4	PICKS PER DM	40. TOLERANCE ± 2
6.5	ELONGATION AT BREAK OF FABRIC	(5.0 CM X 20 CM STRIP METHOD)
6.5.1	LENGTHWISE	20%
6.5.2	WIDTHWISE	20%
6.5.3	TOLERANCE	RANGE: 15 to 25 % ON BOTH WIDTHWISE & LENGTHWISE.
7.0	LAMINATION	FABRIC SHALL BE LAMINATED OUTSIDE WITH PP GRANULES (GRADE H350EG/H350FG OR EQUIVALENT) 23 GMS/M ² (CORRESPONDING TO 100 GAUGE NOMINAL) WITH AN OVERLAP/OVERHANG OF 5- 15MM. VIRGIN PP GRANULES SHALL BE USED AND THE LAMINATION SHALL BE FREE FROM PIN HOLES, PATCHES, BLISTERS, TEARS ETC. THE LAMINATION SHOULD COVER THE ENTIRE OUTSIDE AREA OF THE FABRIC USED. COLOR OF LAMINATION OF BAGS SHALL BE TRANSPARENT
8.0	BAG MOUTH	NEATLY SCISSOR CUT. EDGES SHOULD NOT BE ROUGH

1	01/8/20	ENQUIRY (REVISED)	NIBU	VIMALA	K.REDDY
0	17/2/20	ENQUIRY	NIBU	VIMALA	NAGESH
REV. NO.	DATE	STATUS	PREP'D	CHECKED	APPR'D

 FACT	FACT UDYOGAMANDAL COMPLEX	UCTS/TPS/2020-02 R1
TECHNICAL PROCUREMENT SPECIFICATION	OUTSIDE LAMINATED POLYPROPYLENE (PP) BAGS WOVEN ON CIRCULAR LOOMS FOR PACKING AMMONIUM SULPHATE	PAGE 3 of 5


9.0	BRANDING/PRINTING	DOUBLE COLOUR, SINGLE SIDE AS PER MONOGRAM SPECIFIED BY FACT. THE FOLLOWING INK (FERTILISER GRADE) SHALL BE USED: HINDUSTAN INK BY HINDUSTAN INKS AND RESINS LTD., DAMAN.OR VARSHA INK OF VARSHA PRINTING INK MFG. CO., NAGPUR. SHADE OF THE BRANDING SHALL BE UNIFORM AND MATCHING FACT'S REQUIREMENTS.
		<p>THE INK USED SHOULD HAVE SCRATCH RESISTANT AIDS, GLOSSY, HIGH TECH/ POLYAMIDE QUALITY, ALKALI RESISTANT, SMUDGE FREE, BRIGHT IN COLOR, SHOULD NOT SMEAR IN CONTACT WITH WATER AND SHOULD NOT AFFECT THE FABRIC. ART WORK WILL BE PROVIDED BY FACT. PRINTING QUALITY SHALL BE CORONA TREATED SCUFF RESISTANT/VERY SHARP PRINT,NAIL PROOF/TAPE PROOF & EVEN COLORS THROUGHOUT THE LOT(PREFERABLY POLYAMIDE) ON ROLL TO ROLL PRINTING MACHINE. 3 SAMPLES OF THE BAGS OF THE REQUIRED COLOUR AS PER FACT REQUIREMENT SHALL BE SUBMITTED BEFORE STARTING BULK MANUFACTURING OF BAGS.ALL THE SAMPLES WILL BE SIGNED AND APPROVED SAMPLE WILL BE RETURNED WITH SIGNATURE OF THE AUTHORIZED REPRESENTATIVE OF FACT. ANY LOT SUPPLIED, IF FOUND DEVIATING IN COLOUR AS COMPARED TO APPROVED COLOUR WILL NOT BE ACCEPTED.</p> <p>EACH SACK SHALL BE COMPULSORILY MARKED WITH VISIBLE RECYCLING LOGO (PP) AS SHOWN IN IS 9755:2016, IN THE BOTTOM OF THE BAG.</p> <p>THE ENTIRE LOT OF PP BAGS SHALL BE LIABLE FOR REJECTION IN CASE THE TEST SAMPLES FAIL TO PASS THE TAPE TEST, ALKALI TEST AND STANDARD TEST FOR ABRASION RESISTANCE OF PRINTED MATERIALS BY SUTHERLAND RUB TESTER: AS PER ASTM D5264-98(RE APPROVED 2004)</p>
10.0	STITCHING	<div style="text-align: center;">1</div> <p>SINGLE FOLD, DOUBLE STITCH WITH UV STABILISED THREAD/ MULTIFILAMENT YARN OF 1200 DENIER. STITCHING SHALL BE DONE AS PRESCRIBED IN IS 9755. FOLD SHOULD OCCUR ON THE OPPOSITE SIDE OF THE PRINTING MADE ON THE BAG.</p>
11.0	PACKING	400 BAGS IN A BALE. BALES SHALL BE WRAPPED WITH HDPE/PP FABRIC OR HESSIAN CLOTH AND STITCHED PROPERLY TO WITHSTAND HAZARDS OF TRANSPORTATION. EACH BALE SHALL BE MARKED WITH NAME OF SUPPLIER, TYPE AND SIZE OF BAG, SERIAL NO. OF BALE, NO. OF BAGS IN THE BALE AND THE BALE WEIGHT

1	01/8/20	ENQUIRY (REVISED)	NIBU	VIMALA	K.REDDY
0	17/2/20	ENQUIRY	NIBU	VIMALA	NAGESH
REV. NO.	DATE	STATUS	PREP'D	CHECKED	APPR'D

**FACT****FACT UDYOGAMANDAL COMPLEX****UCTS/TPS/2020-02
R1****TECHNICAL
PROCUREMENT
SPECIFICATION****OUTSIDE LAMINATED POLYPROPYLENE (PP)
BAGS WOVEN ON CIRCULAR LOOMS FOR
PACKING AMMONIUM SULPHATE****PAGE 4 of 5**

12.0	ASH CONTENT	ALL THE LOTS SUPPLIED SHALL BE TESTED FOR ASH CONTENT WHICH INCLUDES MAINLY CALCIUM CARBONATE CONTENT. ASH CONTENT IN BAGS SHALL BE 2.2% MAX (INCLUDING ALL IMPURITIES). IN CASE ASH CONTENT IS ABOVE 2.2% THE LOT WILL BE REJECTED. SAMPLES SHALL BE TAKEN OUT FROM THE LOT AS SPECIFIED IN IS 9755:2016 FOR TESTING ASH CONTENT
13.0	CRITERIA FOR CONFORMITY	THE LOT SHALL BE CONSIDERED AS CONFORMING TO THE REQUIREMENTS FOR ACCEPTANCE IF ALL THE FOLLOWING CONDITIONS ARE SATISFIED.
	i. THE NUMBER OF DEFECTIVE SACKS IN CASE OF VISUAL INSPECTIONS, ENDS, PICKS AND DIMENSIONS IS UP TO 10% OF THE SAMPLE SIZE AFTER ROUNDING OFF THE FRACTION TO NEXT HIGHER INTEGER. ii. NONE OF THE SACK OR BALE OF 400 SACKS WEIGHS LESS THAN THE RESPECTIVE LOWER SPECIFIED LIMIT. HIGHER WEIGHT CAN BE ACCEPTED iii. THE AVERAGE BREAKING STRENGTH OF FABRIC IN BOTH LENGTHWISE, WIDTHWISE AND WIDTHWISE (LAMINATION JOINT) IS NOT LESS THAN THE VALUE SPECIFIED AND NONE OF THE INDIVIDUAL VALUES IS MORE THAN 10% BELOW THE SPECIFIED VALUE. THE SAMPLES SELECTED FOR BREAKING STRENGTH TESTS SHALL BE FREE FROM DEFECTS IN VISUAL INSPECTION, DIMENSIONS, ENDS, PICKS AND MASS REQUIREMENTS. iv. THE AVERAGE BREAKING STRENGTH OF THE FABRIC AT BOTTOM SEAM IS NOT LESS THAN THE VALUE SPECIFIED AND NONE OF THE INDIVIDUAL BAG VALUE IS MORE THAN 10 PERCENT BELOW THE SPECIFIED VALUE. THE SAMPLE SELECTED FOR SEAM STRENGTH TESTS SHALL BE FREE FROM DEFECTS IN VISUAL INSPECTION, DIMENSIONS, ENDS, PICKS AND MASS REQUIREMENTS. v. NONE OF THE SAMPLE SACKS SHALL HAVE PERCENTAGE ELONGATION AND ASH CONTENT OUTSIDE THE SPECIFIED RANGE vi. NONE OF THE PP SACK SAMPLES AFTER EXPOSING TO UV RADIATION AND WEATHERING SHALL HAVE BREAKING STRENGTH LESS THAN 50 PERCENT OF THE ORIGINAL BREAKING STRENGTH. vii. NONE OF THE PP SACK SAMPLES SHALL FAIL IN THE DROP TEST	

1	01/8/20	ENQUIRY (REVISED)	NIBU	VIMALA	K.REDDY
0	17/2/20	ENQUIRY	NIBU	VIMALA	NAGESH
REV. NO.	DATE	STATUS	PREP'D	CHECKED	APPR'D

 FACT	FACT UDYOGAMANDAL COMPLEX	UCTS/TPS/2020-02 R1
TECHNICAL PROCUREMENT SPECIFICATION	OUTSIDE LAMINATED POLYPROPYLENE (PP) BAGS WOVEN ON CIRCULAR LOOMS FOR PACKING AMMONIUM SULPHATE	PAGE 5 of 5

	viii. NONE OF THE PP SACK TEST SAMPLES SHALL FAIL IN THE TAPE TEST, ALKALI TEST AND STANDARD TEST FOR ABRASION RESISTANCE OF PRINTED MATERIALS BY SUTHERLAND RUB TESTER: AS PER ASTM D5264-98 (RE APPROVED 2004)	
14.0	APPLICABLE STANDARD	APPLICABLE STANDARD SHALL BE IS 9755: 2016 FOR PP WOVEN SACKS FOR PACKING FERTILISERS. HOWEVER, IN CASES WHERE REQUIREMENTS IN THIS SPECIFICATION DIFFER FROM THOSE IN IS 9755:2016, REQUIREMENTS IN THIS SPECIFICATION SHALL PREVAIL OVER THOSE IN IS 9755:2016.

1	01/8/20	ENQUIRY (REVISED)	NIBU	VIMALA	K.REDDY
0	17/2/20	ENQUIRY	NIBU	VIMALA	NAGESH
REV. NO.	DATE	STATUS	PREP'D	CHECKED	APPR'D

TECHNICAL PROCUREMENT SPECIFICATION (TPS)

FOR

OUTSIDE LAMINATED POLYPROPYLENE (PP) BAGS

FOR


PACKING MURIATE OF POTASH (MOP)

FACT UDYOGAMANDAL COMPLEX

KOCHI

INDIA

TPS No. UCTS/TPS/2020-03 R1

 FACT	FACT UDYOGAMANDAL COMPLEX	UCTS/TPS/2020-03 R1
TECHNICAL PROCUREMENT SPECIFICATION	OUTSIDE LAMINATED POLYPROPYLENE (PP) BAGS WOVEN ON CIRCULAR LOOMS FOR PACKING MURIATE OF POTASH (MOP)	PAGE 1 of 5


No	Description	Details
1.0	INSIDE DIMENSIONS	788 MM X 559 MM
1.1	TOLERANCE	+ 30 MM, -0.00 (-NIL ON BOTH WIDTH AND LENGTH.)
2.0	CAPACITY	50 KGS.
3.0	BAG WEIGHT	
3.1	WEIGHT OF INDIVIDUAL BAG	108 GMS. TOLERANCE \pm 3%
3.2	WEIGHT OF A BALE (400 BAGS)	43.2 KGS. (NET WT.) TOLERANCE +3%/- 0.00% (No negative tolerance)
4.0	BREAKING STRENGTH	TESTING OF BREAKING STRENGTH SHALL BE DONE USING RAVELLED STRIP METHOD (CONSTANT RATE OF TRAVERSE) AND THE RATE OF TRAVERSE SHALL BE 300 MM/MINUTE.
4.1	i) WIDTHWISE ii) WIDTHWISE (Lamination Joint)	91.8 KGF 91.8 KGF
4.2	LENGTHWISE	91.8 KGF
4.3	BOTTOM SEAM	40.8 KGF
5.0	DROP TEST	THE DROP TEST SHALL BE CARRIED OUT FOR EACH LOT SUPPLIED BY THE BAG SUPPLIER. FOR THIS TEST 4 nos. BAGS SHALL BE RANDOMLY SELECTED FROM EACH LOT. ALL BAGS SHALL BE SUBJECTED TO DROP TEST FROM A HEIGHT OF 3 MTRS FROM BOTH SIDES (4 DROP PER BAG). BAGS DURING DROP TEST WILL DROPPED ON THE STOMACH. NO BAGS SHOULD RUPTURE WHEN SUBJECTED TO MINIMUM 04 NOS. DROPS.
6.0	FABRIC	BAGS MADE OUT OF SINGLE PIECE OF LAMINATED PP FABRIC WOVEN ON CIRCULAR LOOM AS PER IS 9755. ANY MIDDLE SEWN OR JOINTED BAGS WILL NOT BE ACCEPTABLE. THE FABRIC USED SHALL BE FREE FROM ALL MAJOR WEAVING DEFECTS LIKE GAPS, PICK POINTS, MISSING TAPES ETC. PP GRANULE

1	01/8/20	ENQUIRY (REVISED)	NIBU	VIMALA	K.REDDY
0	27/2/20	ENQUIRY	NIBU	VIMALA	NAGESH
REV. NO.	DATE	STATUS	PREP'D	CHECKED	APPR'D

**FACT****FACT UDYOGAMANDAL COMPLEX****UCTS/TPS/2020-03
R1****TECHNICAL
PROCUREMENT
SPECIFICATION****OUTSIDE LAMINATED POLYPROPYLENE (PP)
BAGS WOVEN ON CIRCULAR LOOMS FOR
PACKING MURIATE OF POTASH (MOP)****PAGE 2 of 5**

		FOR FABRIC & UV MASTER BATCH- Grade H030SG OR EQUIVALENT . MIN 3% of 20% UV MASTER BATCH TO BE USED AND THE PP WOVEN FABRIC OF SACK SHALL BE MADE OUT OF UV STABILISED MATERIAL AND SHALL HAVE AT LEAST 50% OF ORIGINAL BREAKING STRENGTH WHEN TESTED AFTER THE SAME HAS BEEN EXPOSED TO UV RADIATION AND WEATHERING AS PER METHOD GIVEN IN ANNEXURE-D OF IS 9755 /2016. FABRIC COLOUR-MILKY WHITE WITH BLUE TONE.
6.1	TAPE	MONOAXIALLY ORIENTED PP TAPES HAVING 1000 DENIER AND MINIMUM WIDTH OF 2.5MM. THE FABRIC SHALL BE WOVEN FROM PP TAPES CONFORMING TO IS: 11197 . THE ELONGATION OF TAPES WHILE TESTING BREAKING STRENGTH SHALL BE IN THE RANGE OF 15 to 25%. TOLERANCE FOR DENIER: $\pm 10\%$ DENIER.
6.2	MESH	10 x 10 PER SQ. INCH.
6.3	ENDS PER DM	40. TOLERANCE ± 2
6.4	PICKS PER DM	40. TOLERANCE ± 2
6.5	ELONGATION AT BREAK OF FABRIC	(5.0 CM X 20 CM STRIP METHOD)
6.5.1	LENGTHWISE	20%
6.5.2	WIDTHWISE	20%
6.5.3	TOLERANCE	RANGE: 15 to 25 % ON BOTH WIDTHWISE & LENGTHWISE.
7.0	LAMINATION	FABRIC SHALL BE LAMINATED OUTSIDE WITH PP GRANULES (GRADE H350EG/H350FG OR EQUIVALENT) 23 GMS/M ² (CORRESPONDING TO 100 GAUGE NOMINAL) WITH AN OVERLAP/OVERHANG OF 5- 15MM. VIRGIN PP GRANULES SHALL BE USED AND THE LAMINATION SHALL BE FREE FROM PIN HOLES, PATCHES, BLISTERS, TEARS ETC. THE LAMINATION SHOULD COVER THE ENTIRE OUTSIDE AREA OF THE FABRIC USED. COLOR OF LAMINATION OF BAGS SHALL BE TRANSPARENT
8.0	BAG MOUTH	NEATLY SCISSOR CUT. EDGES SHOULD NOT BE ROUGH

1	01/8/20	ENQUIRY (REVISED)	NIBU	VIMALA	K.REDDY
0	27/2/20	ENQUIRY	NIBU	VIMALA	NAGESH
REV. NO.	DATE	STATUS	PREP'D	CHECKED	APPR'D

 FACT	FACT UDYOGAMANDAL COMPLEX	UCTS/TPS/2020-03 R1
TECHNICAL PROCUREMENT SPECIFICATION	OUTSIDE LAMINATED POLYPROPYLENE (PP) BAGS WOVEN ON CIRCULAR LOOMS FOR PACKING MURIATE OF POTASH (MOP)	PAGE 3 of 5


9.0	BRANDING/PRINTING	DOUBLE COLOUR, SINGLE SIDE AS PER MONOGRAM SPECIFIED BY FACT. THE FOLLOWING INK (FERTILISER GRADE) SHALL BE USED: HINDUSTAN INK BY HINDUSTAN INKS AND RESINS LTD., DAMAN.OR VARSHA INK OF VARSHA PRINTING INK MFG. CO., NAGPUR. SHADE OF THE BRANDING SHALL BE UNIFORM AND MATCHING FACT'S REQUIREMENTS.
		<p>THE INK USED SHOULD HAVE SCRATCH RESISTANT AIDS, GLOSSY, HIGH TECH/ POLYAMIDE QUALITY, ALKALI RESISTANT, SMUDGE FREE, BRIGHT IN COLOR, SHOULD NOT SMEAR IN CONTACT WITH WATER AND SHOULD NOT AFFECT THE FABRIC. ART WORK WILL BE PROVIDED BY FACT. PRINTING QUALITY SHALL BE CORONA TREATED SCUFF RESISTANT/VERY SHARP PRINT,NAIL PROOF/TAPE PROOF & EVEN COLORS THROUGHOUT THE LOT(PREFERABLY POLYAMIDE) ON ROLL TO ROLL PRINTING MACHINE. 3 SAMPLES OF THE BAGS OF THE REQUIRED COLOUR AS PER FACT REQUIREMENT SHALL BE SUBMITTED BEFORE STARTING BULK MANUFACTURING OF BAGS.ALL THE SAMPLES WILL BE SIGNED AND APPROVED SAMPLE WILL BE RETURNED WITH SIGNATURE OF THE AUTHORIZED REPRESENTATIVE OF FACT. ANY LOT SUPPLIED, IF FOUND DEVIATING IN COLOUR AS COMPARED TO APPROVED COLOUR WILL NOT BE ACCEPTED.</p> <p>EACH SACK SHALL BE COMPULSORILY MARKED WITH VISIBLE RECYCLING LOGO (PP) AS SHOWN IN IS 9755:2016, IN THE BOTTOM OF THE BAG.</p> <p>THE ENTIRE LOT OF PP BAGS SHALL BE LIABLE FOR REJECTION IN CASE THE TEST SAMPLES FAIL TO PASS THE TAPE TEST, ALKALI TEST AND STANDARD TEST FOR ABRASION RESISTANCE OF PRINTED MATERIALS BY SUTHERLAND RUB TESTER: AS PER ASTM D5264-98(RE APPROVED 2004)</p>
10.0	STITCHING	<div style="text-align: center;">1</div> <p>SINGLE FOLD, DOUBLE STITCH WITH UV STABILISED THREAD/ MULTIFILAMENT YARN OF 1200 DENIER. STITCHING SHALL BE DONE AS PRESCRIBED IN IS 9755. FOLD SHOULD OCCUR ON THE OPPOSITE SIDE OF THE PRINTING MADE ON THE BAG.</p>
11.0	PACKING	400 BAGS IN A BALE. BALES SHALL BE WRAPPED WITH HDPE/PP FABRIC OR HESSIAN CLOTH AND STITCHED PROPERLY TO WITHSTAND HAZARDS OF TRANSPORTATION. EACH BALE SHALL BE MARKED WITH NAME OF SUPPLIER, TYPE AND SIZE OF BAG, SERIAL NO. OF BALE, NO. OF BAGS IN THE BALE AND THE BALE WEIGHT

1	01/8/20	ENQUIRY (REVISED)	NIBU	VIMALA	K.REDDY
0	27/2/20	ENQUIRY	NIBU	VIMALA	NAGESH
REV. NO.	DATE	STATUS	PREP'D	CHECKED	APPR'D

**FACT****FACT UDYOGAMANDAL COMPLEX****UCTS/TPS/2020-03
R1****TECHNICAL
PROCUREMENT
SPECIFICATION****OUTSIDE LAMINATED POLYPROPYLENE (PP)
BAGS WOVEN ON CIRCULAR LOOMS FOR
PACKING MURIATE OF POTASH (MOP)****PAGE 4 of 5**

12.0	ASH CONTENT	ALL THE LOTS SUPPLIED SHALL BE TESTED FOR ASH CONTENT WHICH INCLUDES MAINLY CALCIUM CARBONATE CONTENT. ASH CONTENT IN BAGS SHALL BE 2.2% MAX (INCLUDING ALL IMPURITIES). IN CASE ASH CONTENT IS ABOVE 2.2% THE LOT WILL BE REJECTED. SAMPLES SHALL BE TAKEN OUT FROM THE LOT AS SPECIFIED IN IS 9755:2016 FOR TESTING ASH CONTENT
13.0	CRITERIA FOR CONFORMITY	THE LOT SHALL BE CONSIDERED AS CONFORMING TO THE REQUIREMENTS FOR ACCEPTANCE IF ALL THE FOLLOWING CONDITIONS ARE SATISFIED.
	i. THE NUMBER OF DEFECTIVE SACKS IN CASE OF VISUAL INSPECTIONS, ENDS, PICKS AND DIMENSIONS IS UP TO 10% OF THE SAMPLE SIZE AFTER ROUNDING OFF THE FRACTION TO NEXT HIGHER INTEGER. ii. NONE OF THE SACK OR BALE OF 400 SACKS WEIGHS LESS THAN THE RESPECTIVE LOWER SPECIFIED LIMIT. HIGHER WEIGHT CAN BE ACCEPTED iii. THE AVERAGE BREAKING STRENGTH OF FABRIC IN BOTH LENGTHWISE, WIDTHWISE AND WIDTHWISE (LAMINATION JOINT) IS NOT LESS THAN THE VALUE SPECIFIED AND NONE OF THE INDIVIDUAL VALUES IS MORE THAN 10% BELOW THE SPECIFIED VALUE. THE SAMPLES SELECTED FOR BREAKING STRENGTH TESTS SHALL BE FREE FROM DEFECTS IN VISUAL INSPECTION, DIMENSIONS, ENDS, PICKS AND MASS REQUIREMENTS. iv. THE AVERAGE BREAKING STRENGTH OF THE FABRIC AT BOTTOM SEAM IS NOT LESS THAN THE VALUE SPECIFIED AND NONE OF THE INDIVIDUAL BAG VALUE IS MORE THAN 10% BELOW THE SPECIFIED VALUE. THE SAMPLE SELECTED FOR SEAM STRENGTH TESTS SHALL BE FREE FROM DEFECTS IN VISUAL INSPECTION, DIMENSIONS, ENDS, PICKS AND MASS REQUIREMENTS. v. NONE OF THE SAMPLE SACKS SHALL HAVE PERCENTAGE ELONGATION AND ASH CONTENT OUTSIDE THE SPECIFIED RANGE vi. NONE OF THE PP SACK SAMPLES AFTER EXPOSING TO UV RADIATION AND WEATHERING SHALL HAVE BREAKING STRENGTH LESS THAN 50 PERCENT OF THE ORIGINAL BREAKING STRENGTH. vii. NONE OF THE PP SACK SAMPLES SHALL FAIL IN THE DROP TEST	

1	01/8/20	ENQUIRY (REVISED)	NIBU	VIMALA	K.REDDY
0	27/2/20	ENQUIRY	NIBU	VIMALA	NAGESH
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 FACT	FACT UDYOGAMANDAL COMPLEX	UCTS/TPS/2020-03 R1
TECHNICAL PROCUREMENT SPECIFICATION	OUTSIDE LAMINATED POLYPROPYLENE (PP) BAGS WOVEN ON CIRCULAR LOOMS FOR PACKING MURIATE OF POTASH (MOP)	PAGE 5 of 5

	viii. NONE OF THE PP SACK TEST SAMPLES SHALL FAIL IN THE TAPE TEST, ALKALI TEST AND STANDARD TEST FOR ABRASION RESISTANCE OF PRINTED MATERIALS BY SUTHERLAND RUB TESTER: AS PER ASTM D5264-98 (RE APPROVED 2004)	
14.0	APPLICABLE STANDARD	APPLICABLE STANDARD SHALL BE IS 9755: 2016 FOR PP WOVEN SACKS FOR PACKING FERTILISERS. HOWEVER, IN CASES WHERE REQUIREMENTS IN THIS SPECIFICATION DIFFER FROM THOSE IN IS 9755:2016, REQUIREMENTS IN THIS SPECIFICATION SHALL PREVAIL OVER THOSE IN IS 9755:2016.

1	01/8/20	ENQUIRY (REVISED)	NIBU	VIMALA	K.REDDY
0	27/2/20	ENQUIRY	NIBU	VIMALA	NAGESH
REV. NO.	DATE	STATUS	PREP'D	CHECKED	APPR'D

TECHNICAL PROCUREMENT SPECIFICATION (TPS)

FOR

OUTSIDE LAMINATED POLYPROPYLENE (PP) BAGS

FOR

PACKING NPK 16:16:16

FACT UDYOGAMANDAL COMPLEX

KOCHI

INDIA

TPS No. UCTS/TPS/2020-04 R1

**FACT****FACT UDYOGAMANDAL COMPLEX****UCTS/TPS/2020-04
R1****TECHNICAL
PROCUREMENT
SPECIFICATION****OUTSIDE LAMINATED POLYPROPYLENE (PP)
BAGS WOVEN ON CIRCULAR LOOMS FOR
PACKING NPK 16:16:16****PAGE 1 of 5**

No	Description	Details
1.0	INSIDE DIMENSIONS	890 MM X 570 MM
1.1	TOLERANCE	+ 30 MM, -0.00 (-NIL ON BOTH WIDTH AND LENGTH.)
2.0	CAPACITY	50 KGS.
3.0	BAG WEIGHT	
3.1	WEIGHT OF INDIVIDUAL BAG	167 GMS. TOLERANCE \pm 3%
3.2	WEIGHT OF A BALE (250 BAGS)	41.75 KGS. (NET WT.) TOLERANCE +3%/- 0.00% (No negative tolerance)
4.0	BREAKING STRENGTH	TESTING OF BREAKING STRENGTH SHALL BE DONE USING RAVELLED STRIP METHOD (CONSTANT RATE OF TRAVERSE) AND THE RATE OF TRAVERSE SHALL BE 300 MM/MINUTE.
4.1	i) WIDTHWISE ii) WIDTHWISE (Lamination Joint)	91.8 KGF 91.8 KGF
4.2	LENGTHWISE	91.8 KGF
4.3	BOTTOM SEAM	40.8 KGF
5.0	DROP TEST	THE DROP TEST SHALL BE CARRIED OUT FOR EACH LOT SUPPLIED BY THE BAG SUPPLIER. FOR THIS TEST 4 nos. BAGS SHALL BE RANDOMLY SELECTED FROM EACH LOT. ALL BAGS SHALL BE SUBJECTED TO DROP TEST FROM A HEIGHT OF 3M FROM BOTH SIDES (4 DROP PER BAG). BAGS DURING DROP TEST WILL DROPPED ON THE STOMACH. NO BAGS SHOULD RUPTURE WHEN SUBJECTED TO MINIMUM 04 NOS. DROPS.
6.0	FABRIC	BAGS MADE OUT OF SINGLE PIECE OF LAMINATED PP FABRIC WOVEN ON CIRCULAR LOOM AS PER IS 9755. ANY MIDDLE SEWN OR JOINTED BAGS WILL NOT BE ACCEPTABLE. THE FABRIC USED SHALL BE FREE FROM ALL MAJOR WEAVING DEFECTS LIKE GAPS, PICK POINTS, MISSING TAPES ETC. PP GRANULE FOR FABRIC & UV MASTER BATCH- Grade H030SG OR

1	08/03/21	NIBU	VIMALA	NAGESH
0	16/04/20	NIBU	VIMALA	NAGESH
REV.NO.	DATE	PREP'D	CHECKED	APPR'D

**FACT****FACT UDYOGAMANDAL COMPLEX****UCTS/TPS/2020-04
R1****TECHNICAL
PROCUREMENT
SPECIFICATION****OUTSIDE LAMINATED POLYPROPYLENE (PP)
BAGS WOVEN ON CIRCULAR LOOMS FOR
PACKING NPK 16:16:16****PAGE 2 of 5**

		EQUIVALENT. MIN 3% of 20% UV MASTER BATCH TO BE USED AND THE PP WOVEN FABRIC OF SACK SHALL BE MADE OUT OF UV STABILISED MATERIAL AND SHALL HAVE AT LEAST 50% OF ORIGINAL BREAKING STRENGTH WHEN TESTED AFTER THE SAME HAS BEEN EXPOSED TO UV RADIATION AND WEATHERING AS PER METHOD GIVEN IN ANNEXURE-D OF IS 9755 : 2016. FABRIC COLOUR-MILKY WHITE WITH BLUE TONE.
6.1	TAPE	MONOAXIALLY ORIENTED PP TAPES HAVING 1000 DENIER AND MINIMUM WIDTH OF 2.5MM. THE FABRIC SHALL BE WOVEN FROM PP TAPES CONFORMING TO IS: 11197. THE ELONGATION OF TAPES WHILE TESTING BREAKING STRENGTH SHALL BE IN THE RANGE OF 15 to 25%. TOLERANCE FOR DENIER: $\pm 10\%$ DENIER.
6.2	MESH	10 x 10 PER SQ. INCH.
6.3	ENDS PER DM	40. TOLERANCE ± 2
6.4	PICKS PER DM	40. TOLERANCE ± 2
6.5	ELONGATION AT BREAK OF FABRIC	(5.0 CM X 20 CM STRIP METHOD)
6.5.1	LENGTHWISE	20%
6.5.2	WIDTHWISE	20%
6.5.3	TOLERANCE	RANGE: 15 to 25 % ON BOTH WIDTHWISE & LENGTHWISE.
7.0	LAMINATION	FABRIC SHALL BE LAMINATED OUTSIDE WITH PP GRANULES (PP GRADE LAMINATION- H350EG/H350FG OR EQUIVALENT) 23 GMS/M ² (CORRESPONDING TO 100 GAUGE NOMINAL) WITH AN OVERLAP/OVERHANG OF 5- 15MM. VIRGIN PP GRANULES SHALL BE USED AND THE LAMINATION SHALL BE FREE FROM PIN HOLES, PATCHES, BLISTERS, TEARS ETC. THE LAMINATION SHOULD COVER THE ENTIRE OUTSIDE AREA OF THE FABRIC USED. COLOR OF LAMINATION OF BAGS SHALL BE TRANSPARENT
8.0	LINER	i. COLOUR : WHITE ii. HMHDPE WITH THICKNESS 40 MICRONS $\pm 10\%$ tolerance iii. LENGTH-915 MM X WIDTH-590 MM iv. HMHDPE GRADE-F55HM0003 or EQUIVALENT

1	08/03/21	NIBU	VIMALA	NAGESH
0	16/04/20	NIBU	VIMALA	NAGESH
REV.NO.	DATE	PREP'D	CHECKED	APPR'D

**FACT****FACT UDYOGAMANDAL COMPLEX****UCTS/TPS/2020-04
R1****TECHNICAL
PROCUREMENT
SPECIFICATION****OUTSIDE LAMINATED POLYPROPYLENE (PP)
BAGS WOVEN ON CIRCULAR LOOMS FOR
PACKING NPK 16:16:16****PAGE 3 of 5**


		(Liner and fabric should be stitched together at the mouth and at bottom. Ref: clauses 9.0 & 11.0).
9.0	BAG MOUTH	LINER AND FABRIC SHOULD BE STITCHED TOGETHER AT MOUTH BY MAKING SINGLE FOLD OF 25MM(LINER WITH FABRIC) FROM OUTER EDGE TOWARDS THE INSIDE OF THE BAG AND SINGLE ROW CHAIN STITCH AT 12MM FROM FOLD EDGE WITHOUT ANY LOOSE ENDS OR KNOTS BETWEEN THE STITCHES . THE STARTING AND CLOSING OF THE STITCH SHOULD NOT BE ON THE PRINTING SIDE
10.0	BRANDING/PRINTING	DOUBLE COLOUR, SINGLE SIDE AS PER MONOGRAM SPECIFIED BY FACT. THE FOLLOWING INK (FERTILISER GRADE) SHALL BE USED: HINDUSTAN INK BY HINDUSTAN INKS AND RESINS LTD., DAMAN.OR VARSHA INK OF VARSHA PRINTING INK MFG. CO., NAGPUR. SHADE OF THE BRANDING SHALL BE UNIFORM AND MATCHING FACT'S REQUIREMENTS.
	<p>THE INK USED SHOULD HAVE SCRATCH RESISTANT AIDS, GLOSSY, HIGH TECH/ POLYAMIDE QUALITY, ALKALI RESISTANT, SMUDGE FREE, BRIGHT IN COLOR, SHOULD NOT SMEAR IN CONTACT WITH WATER AND SHOULD NOT AFFECT THE FABRIC. ART WORK WILL BE PROVIDED BY FACT. PRINTING QUALITY SHALL BE CORONA TREATED SCUFF RESISTANT/VERY SHARP PRINT,NAIL PROOF/TAPE PROOF & EVEN COLORS THROUGHOUT THE LOT(PREFERABLY POLYAMIDE) ON ROLL TO ROLL PRINTING MACHINE. 3 SAMPLES OF THE BAGS OF THE REQUIRED COLOUR AS PER FACT REQUIREMENT SHALL BE SUBMITTED BEFORE STARTING BULK MANUFACTURING OF BAGS.ALL THE SAMPLES WILL BE SIGNED AND APPROVED SAMPLE WILL BE RETURNED WITH SIGNATURE OF THE AUTHORIZED REPRESENTATIVE OF FACT. ANY LOT SUPPLIED, IF FOUND DEVIATING IN COLOUR AS COMPARED TO APPROVED COLOUR WILL NOT BE ACCEPTED.</p> <p>EACH SACK SHALL BE COMPULSORILY MARKED WITH VISIBLE RECYCLING LOGO (PP) AS SHOWN IN IS 9755:2016, IN THE BOTTOM OF THE BAG.</p> <p>THE ENTIRE LOT OF PP BAGS SHALL BE LIABLE FOR REJECTION IN CASE THE TEST SAMPLES FAIL TO PASS THE TAPE TEST, ALKALI TEST AND STANDARD TEST FOR ABRASION RESISTANCE OF PRINTED MATERIALS BY SUTHERLAND RUB TESTER: AS PER ASTM D5264-98(RE APPROVED 2004)</p>	

1	08/03/21	NIBU	VIMALA	NAGESH
0	16/04/20	NIBU	VIMALA	NAGESH
REV.NO.	DATE	PREP'D	CHECKED	APPR'D

**FACT****FACT UDYOGAMANDAL COMPLEX****UCTS/TPS/2020-04
R1****TECHNICAL
PROCUREMENT
SPECIFICATION****OUTSIDE LAMINATED POLYPROPYLENE (PP)
BAGS WOVEN ON CIRCULAR LOOMS FOR
PACKING NPK 16:16:16****PAGE 4 of 5**

11.0	STITCHING	SINGLE FOLD, SINGLE STITCH AT MOUTH AND SINGLE FOLD, DOUBLE STITCH AT BOTTOM WITH UV STABILISED THREAD/MULTIFILAMENT YARN OF 1200 DENIER. STITCHING SHALL BE DONE AS PRESCRIBED IN IS 9755. FOLD SHOULD OCCUR ON THE OPPOSITE SIDE OF THE PRINTING MADE ON THE BAG.
12.0	PACKING	250 BAGS IN A BALE. BALES SHALL BE WRAPPED WITH HDPE/PP FABRIC OR HESSIAN CLOTH AND STITCHED PROPERLY TO WITHSTAND HAZARDS OF TRANSPORTATION. EACH BALE SHALL BE MARKED WITH NAME OF SUPPLIER, TYPE AND SIZE OF BAG, SERIAL NO. OF BALE, NO. OF BAGS IN THE BALE AND THE BALE WEIGHT
13.0	ASH CONTENT	ALL THE LOTS SUPPLIED SHALL BE TESTED FOR ASH CONTENT WHICH INCLUDES MAINLY CALCIUM CARBONATE CONTENT. ASH CONTENT IN BAGS SHALL BE 2.2% MAX (INCLUDING ALL IMPURITIES). IN CASE ASH CONTENT IS ABOVE 2.2% THE LOT WILL BE REJECTED. SAMPLES SHALL BE TAKEN OUT FROM THE LOT AS SPECIFIED IN IS 9755:2016 FOR TESTING ASH CONTENT
14.0	CRITERIA FOR CONFORMITY	THE LOT SHALL BE CONSIDERED AS CONFORMING TO THE REQUIREMENTS FOR ACCEPTANCE IF ALL THE FOLLOWING CONDITIONS ARE SATISFIED.
	i. THE NUMBER OF DEFECTIVE SACKS IN CASE OF VISUAL INSPECTIONS, ENDS, PICKS AND DIMENSIONS IS UP TO 10% OF THE SAMPLE SIZE AFTER ROUNDING OFF THE FRACTION TO NEXT HIGHER INTEGER. ii. NONE OF THE SACK OR BALE OF 250 SACKS WEIGHS LESS THAN THE RESPECTIVE LOWER SPECIFIED LIMIT. HIGHER WEIGHT CAN BE ACCEPTED iii. THE AVERAGE BREAKING STRENGTH OF FABRIC IN BOTH LENGTHWISE, WIDTHWISE AND WIDTHWISE (LAMINATION JOINT) IS NOT LESS THAN THE VALUE SPECIFIED AND NONE OF THE INDIVIDUAL VALUES IS MORE THAN 10% BELOW THE SPECIFIED VALUE. THE SAMPLES SELECTED FOR BREAKING STRENGTH TESTS SHALL BE FREE FROM DEFECTS IN VISUAL INSPECTION, DIMENSIONS, ENDS, PICKS AND MASS REQUIREMENTS.	

1	08/03/21	NIBU	VIMALA	NAGESH
0	16/04/20	NIBU	VIMALA	NAGESH
REV.NO.	DATE	PREP'D	CHECKED	APPR'D

 FACT	FACT UDYOGAMANDAL COMPLEX	UCTS/TPS/2020-04 R1
TECHNICAL PROCUREMENT SPECIFICATION	OUTSIDE LAMINATED POLYPROPYLENE (PP) BAGS WOVEN ON CIRCULAR LOOMS FOR PACKING NPK 16:16:16	PAGE 5 of 5

	<p>iv. THE AVERAGE BREAKING STRENGTH OF THE FABRIC AT BOTTOM SEAM IS NOT LESS THAN THE VALUE SPECIFIED AND NONE OF THE INDIVIDUAL BAG VALUE IS MORE THAN 10% BELOW THE SPECIFIED VALUE. THE SAMPLE SELECTED FOR SEAM STRENGTH TESTS SHALL BE FREE FROM DEFECTS IN VISUAL INSPECTION, DIMENSIONS, ENDS, PICKS AND MASS REQUIREMENTS.</p> <p>v. NONE OF THE SAMPLE SACKS SHALL HAVE PERCENTAGE ELONGATION AND ASH CONTENT OUTSIDE THE SPECIFIED RANGE</p> <p>vi. NONE OF THE PP SACK SAMPLES AFTER EXPOSING TO UV RADIATION AND WEATHERING SHALL HAVE BREAKING STRENGTH LESS THAN 50 PERCENT OF THE ORIGINAL BREAKING STRENGTH.</p> <p>vii. NONE OF THE PP SACK SAMPLES SHALL FAIL IN THE DROP TEST</p> <p>viii. NONE OF THE PP SACK TEST SAMPLES SHALL FAIL IN THE TAPE TEST, ALKALI TEST AND STANDARD TEST FOR ABRASION RESISTANCE OF PRINTED MATERIALS BY SUTHERLAND RUB TESTER: AS PER ASTM D5264-98 (RE APPROVED 2004)</p>		
15.0	<table border="1"> <tr> <td data-bbox="333 1025 628 1258"> APPLICABLE STANDARD </td><td data-bbox="628 1025 1426 1258"> APPLICABLE STANDARD SHALL BE IS 9755: 2016 FOR PP WOVEN SACKS FOR PACKING FERTILISERS. HOWEVER, IN CASES WHERE REQUIREMENTS IN THIS SPECIFICATION DIFFER FROM THOSE IN IS 9755:2016, REQUIREMENTS IN THIS SPECIFICATION SHALL PREVAIL OVER THOSE IN IS.9755:2016. </td></tr> </table>	APPLICABLE STANDARD	APPLICABLE STANDARD SHALL BE IS 9755: 2016 FOR PP WOVEN SACKS FOR PACKING FERTILISERS. HOWEVER, IN CASES WHERE REQUIREMENTS IN THIS SPECIFICATION DIFFER FROM THOSE IN IS 9755:2016, REQUIREMENTS IN THIS SPECIFICATION SHALL PREVAIL OVER THOSE IN IS.9755:2016.
APPLICABLE STANDARD	APPLICABLE STANDARD SHALL BE IS 9755: 2016 FOR PP WOVEN SACKS FOR PACKING FERTILISERS. HOWEVER, IN CASES WHERE REQUIREMENTS IN THIS SPECIFICATION DIFFER FROM THOSE IN IS 9755:2016, REQUIREMENTS IN THIS SPECIFICATION SHALL PREVAIL OVER THOSE IN IS.9755:2016.		

(Ref.-TPS No. PP bag ORGANIC spec (R5)dt.04/12/2018
& UCTS/TPS/2020-04 R0 dtd.16/4/20)

1	08/03/21	NIBU	VIMALA	NAGESH
0	16/04/20	NIBU	VIMALA	NAGESH
REV.NO.	DATE	PREP'D	CHECKED	APPR'D

TECHNICAL PROCUREMENT SPECIFICATION

FOR

OUTSIDE LAMINATED POLYPROPYLENE (PP) BAGS

FOR


PACKING GYPSUM

FACT COCHIN DIVISION

KOCHI


INDIA

TPS No. CD-TSD-2021-12

 FACT	FACT COCHIN DIVISION	CD-TSD-2021-12
TECHNICAL PROCUREMENT SPECIFICATION	OUTSIDE LAMINATED POLYPROPYLENE (PP) BAGS WOVEN ON CIRCULAR LOOMS FOR PACKING GYPSUM	PAGE 1 of 5


No	Description	Details
1.0	INSIDE DIMENSIONS	889 MM X 533 MM
1.1	TOLERANCE	+ 30 MM, -0.00 (-NIL ON BOTH WIDTH AND LENGTH.)
2.0	CAPACITY	50 KGS.
3.0	BAG WEIGHT	
3.1	WEIGHT OF INDIVIDUAL BAG	115 GMS. TOLERANCE \pm 3%
3.2	WEIGHT OF A BALE (400 BAGS)	46.0 KGS. (NET WT.) TOLERANCE +3%/- 0.00% (No negative tolerance)
4.0	BREAKING STRENGTH	TESTING OF BREAKING STRENGTH SHALL BE DONE USING RAVELLED STRIP METHOD (CONSTANT RATE OF TRAVERSE) AND THE RATE OF TRAVERSE SHALL BE 300 MM/MINUTE.
4.1	i) WIDTHWISE	91.8 KGF
	ii) WIDTHWISE (Lamination Joint)	91.8 KGF
4.2	LENGTHWISE	91.8 KGF
4.3	BOTTOM SEAM	40.8 KGF
5.0	DROP TEST	THE DROP TEST SHALL BE CARRIED OUT FOR EACH LOT SUPPLIED BY THE BAG SUPPLIER. FOR THIS TEST 4 nos. BAGS SHALL BE RANDOMLY SELECTED FROM EACH LOT. ALL BAGS SHALL BE SUBJECTED TO DROP TEST FROM A HEIGHT OF 3 MTRS FROM BOTH SIDES (4 DROP PER BAG). BAGS DURING DROP TEST WILL DROPPED ON THE STOMACH. NO BAGS SHOULD RUPTURE WHEN SUBJECTED TO MINIMUM 04 NOS. DROPS.
6.0	FABRIC	BAGS MADE OUT OF SINGLE PIECE OF LAMINATED PP FABRIC WOVEN ON CIRCULAR LOOM AS PER IS 9755. ANY MIDDLE SEWN OR JOINTED BAGS WILL NOT BE ACCEPTABLE. THE FABRIC USED SHALL BE FREE FROM ALL MAJOR WEAVING DEFECTS LIKE GAPS, PICK POINTS, MISSING TAPES ETC. PP GRANULE

0	25/2/2021	ENQUIRY			
REV. NO.	DATE	STATUS	PREP'D	CHECKED	APPR'D

 FACT	FACT COCHIN DIVISION	CD-TSD-2021-12
TECHNICAL PROCUREMENT SPECIFICATION	OUTSIDE LAMINATED POLYPROPYLENE (PP) BAGS WOVEN ON CIRCULAR LOOMS FOR PACKING GYPSUM	PAGE 2 of 5

		FOR FABRIC & UV MASTER BATCH- Grade H030SG OR EQUIVALENT . MIN 3% of 20% UV MASTER BATCH TO BE USED AND THE PP WOVEN FABRIC OF SACK SHALL BE MADE OUT OF UV STABILISED MATERIAL AND SHALL HAVE AT LEAST 50% OF ORIGINAL BREAKING STRENGTH WHEN TESTED AFTER THE SAME HAS BEEN EXPOSED TO UV RADIATION AND WEATHERING AS PER METHOD GIVEN IN ANNEXURE-D OF IS 9755 /2016. FABRIC COLOUR-MILKY WHITE WITH BLUE TONE.
6.1	TAPE	MONOAXIALLY ORIENTED PP TAPES HAVING 1000 DENIER AND MINIMUM WIDTH OF 2.5MM. THE FABRIC SHALL BE WOVEN FROM PP TAPES CONFORMING TO IS: 11197 . THE ELONGATION OF TAPES WHILE TESTING BREAKING STRENGTH SHALL BE IN THE RANGE OF 15 to 25%. TOLERANCE FOR DENIER: $\pm 10\%$ DENIER.
6.2	MESH	10 x 10 PER SQ. INCH.
6.3	ENDS PER DM	40. TOLERANCE ± 2
6.4	PICKS PER DM	40. TOLERANCE ± 2
6.5	ELONGATION AT BREAK OF FABRIC	(5.0 CM X 20 CM STRIP METHOD)
6.5.1	LENGTHWISE	20%
6.5.2	WIDTHWISE	20%
6.5.3	TOLERANCE	RANGE: 15 to 25 % ON BOTH WIDTHWISE & LENGTHWISE.
7.0	LAMINATION	FABRIC SHALL BE LAMINATED OUTSIDE WITH PP GRANULES (GRADE H350EG/H350FG OR EQUIVALENT) 23 GMS/M ² (CORRESPONDING TO 100 GAUGE NOMINAL) WITH AN OVERLAP/OVERHANG OF 5- 15MM. VIRGIN PP GRANULES SHALL BE USED AND THE LAMINATION SHALL BE FREE FROM PIN HOLES, PATCHES, BLISTERS, TEARS ETC. THE LAMINATION SHOULD COVER THE ENTIRE OUTSIDE AREA OF THE FABRIC USED. COLOR OF LAMINATION OF BAGS SHALL BE TRANSPARENT
8.0	BAG MOUTH	NEATLY SCISSOR CUT. EDGES SHOULD NOT BE ROUGH

0	25/2/2021	ENQUIRY			
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 FACT	FACT COCHIN DIVISION	CD-TSD-2021-12
TECHNICAL PROCUREMENT SPECIFICATION	OUTSIDE LAMINATED POLYPROPYLENE (PP) BAGS WOVEN ON CIRCULAR LOOMS FOR PACKING GYPSUM	PAGE 3 of 5

9.0	BRANDING/PRINTING	DOUBLE COLOUR, SINGLE SIDE AS PER MONOGRAM SPECIFIED BY FACT. THE FOLLOWING INK (FERTILISER GRADE) SHALL BE USED: HINDUSTAN INK BY HINDUSTAN INKS AND RESINS LTD., DAMAN.OR VARSHA INK OF VARSHA PRINTING INK MFG. CO., NAGPUR. SHADE OF THE BRANDING SHALL BE UNIFORM AND MATCHING FACT'S REQUIREMENTS.
		<p>THE INK USED SHOULD HAVE SCRATCH RESISTANT AIDS, GLOSSY, HIGH TECH/ POLYAMIDE QUALITY, ALKALI RESISTANT, SMUDGE FREE, BRIGHT IN COLOR, SHOULD NOT SMEAR IN CONTACT WITH WATER AND SHOULD NOT AFFECT THE FABRIC. ART WORK WILL BE PROVIDED BY FACT. PRINTING QUALITY SHALL BE CORONA TREATED SCUFF RESISTANT/VERY SHARP PRINT,NAIL PROOF/TAPE PROOF & EVEN COLORS THROUGHOUT THE LOT(PREFERABLY POLYAMIDE) ON ROLL TO ROLL PRINTING MACHINE. 3 SAMPLES OF THE BAGS OF THE REQUIRED COLOUR AS PER FACT REQUIREMENT SHALL BE SUBMITTED BEFORE STARTING BULK MANUFACTURING OF BAGS.ALL THE SAMPLES WILL BE SIGNED AND APPROVED SAMPLE WILL BE RETURNED WITH SIGNATURE OF THE AUTHORIZED REPRESENTATIVE OF FACT. ANY LOT SUPPLIED, IF FOUND DEVIATING IN COLOUR AS COMPARED TO APPROVED COLOUR WILL NOT BE ACCEPTED.</p> <p>EACH SACK SHALL BE COMPULSORILY MARKED WITH VISIBLE RECYCLING LOGO (PP) AS SHOWN IN IS 9755:2016, IN THE BOTTOM OF THE BAG.</p> <p>THE ENTIRE LOT OF PP BAGS SHALL BE LIABLE FOR REJECTION IN CASE THE TEST SAMPLES FAIL TO PASS THE TAPE TEST, ALKALI TEST AND STANDARD TEST FOR ABRASION RESISTANCE OF PRINTED MATERIALS BY SUTHERLAND RUB TESTER: AS PER ASTM D5264-98(RE APPROVED 2004)</p>
10.0	STITCHING	<div style="text-align: center;">1</div> <p>SINGLE FOLD, <i>DOUBLE</i> STITCH WITH UV STABILISED THREAD/ MULTIFILAMENT YARN OF 1200 DENIER. STITCHING SHALL BE DONE AS PRESCRIBED IN IS 9755. FOLD SHOULD OCCUR ON THE OPPOSITE SIDE OF THE PRINTING MADE ON THE BAG.</p>
11.0	PACKING	400 BAGS IN A BALE. BALES SHALL BE WRAPPED WITH HDPE/PP FABRIC OR HESSIAN CLOTH AND STITCHED PROPERLY TO WITHSTAND HAZARDS OF TRANSPORTATION. EACH BALE SHALL BE MARKED WITH NAME OF SUPPLIER, TYPE AND SIZE OF BAG, SERIAL NO. OF BALE, NO. OF BAGS IN THE BALE AND THE BALE WEIGHT

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12.0	ASH CONTENT	ALL THE LOTS SUPPLIED SHALL BE TESTED FOR ASH CONTENT WHICH INCLUDES MAINLY CALCIUM CARBONATE CONTENT. ASH CONTENT IN BAGS SHALL BE 2.2% MAX (INCLUDING ALL IMPURITIES). IN CASE ASH CONTENT IS ABOVE 2.2% THE LOT WILL BE REJECTED. SAMPLES SHALL BE TAKEN OUT FROM THE LOT AS SPECIFIED IN IS 9755:2016 FOR TESTING ASH CONTENT			
13.0	CRITERIA FOR CONFORMITY	THE LOT SHALL BE CONSIDERED AS CONFORMING TO THE REQUIREMENTS FOR ACCEPTANCE IF ALL THE FOLLOWING CONDITIONS ARE SATISFIED.			
		<ul style="list-style-type: none"> i. THE NUMBER OF DEFECTIVE SACKS IN CASE OF VISUAL INSPECTIONS, ENDS, PICKS AND DIMENSIONS IS UP TO 10% OF THE SAMPLE SIZE AFTER ROUNDING OFF THE FRACTION TO NEXT HIGHER INTEGER. ii. NONE OF THE SACK OR BALE OF 400 SACKS WEIGHS LESS THAN THE RESPECTIVE LOWER SPECIFIED LIMIT. HIGHER WEIGHT CAN BE ACCEPTED iii. THE AVERAGE BREAKING STRENGTH OF FABRIC IN BOTH LENGTHWISE, WIDTHWISE AND WIDTHWISE (LAMINATION JOINT) IS NOT LESS THAN THE VALUE SPECIFIED AND NONE OF THE INDIVIDUAL VALUES IS MORE THAN 10% BELOW THE SPECIFIED VALUE. THE SAMPLES SELECTED FOR BREAKING STRENGTH TESTS SHALL BE FREE FROM DEFECTS IN VISUAL INSPECTION, DIMENSIONS, ENDS, PICKS AND MASS REQUIREMENTS. iv. THE AVERAGE BREAKING STRENGTH OF THE FABRIC AT BOTTOM SEAM IS NOT LESS THAN THE VALUE SPECIFIED AND NONE OF THE INDIVIDUAL BAG VALUE IS MORE THAN 10 PERCENT BELOW THE SPECIFIED VALUE. THE SAMPLE SELECTED FOR SEAM STRENGTH TESTS SHALL BE FREE FROM DEFECTS IN VISUAL INSPECTION, DIMENSIONS, ENDS, PICKS AND MASS REQUIREMENTS. v. NONE OF THE SAMPLE SACKS SHALL HAVE PERCENTAGE ELONGATION AND ASH CONTENT OUTSIDE THE SPECIFIED RANGE vi. NONE OF THE PP SACK SAMPLES AFTER EXPOSING TO UV RADIATION AND WEATHERING SHALL HAVE BREAKING STRENGTH LESS THAN 50 PERCENT OF THE ORIGINAL BREAKING STRENGTH. vii. NONE OF THE PP SACK SAMPLES SHALL FAIL IN THE DROP TEST 			
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	viii. NONE OF THE PP SACK TEST SAMPLES SHALL FAIL IN THE TAPE TEST, ALKALI TEST AND STANDARD TEST FOR ABRASION RESISTANCE OF PRINTED MATERIALS BY SUTHERLAND RUB TESTER: AS PER ASTM D5264-98 (RE APPROVED 2004)	
14.0	APPLICABLE STANDARD	APPLICABLE STANDARD SHALL BE IS 9755: 2016 FOR PP WOVEN SACKS FOR PACKING FERTILISERS. HOWEVER, IN CASES WHERE REQUIREMENTS IN THIS SPECIFICATION DIFFER FROM THOSE IN IS 9755:2016, REQUIREMENTS IN THIS SPECIFICATION SHALL PREVAIL OVER THOSE IN IS 9755:2016.

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