

**NATIONAL LOGISTICS CORPORATION**  
**INVITATION TO TENDER**  
**FOR SUPPLY OF CHEMICAL ITEMS AND GENERAL STORE ITEMS**  
**ON FOR BASIS TO NLC POLYMERS GUJRANWALA**  
**INSTRUCTION TO TENDERS – WORDS OF CAUTION**

1. **Participation of Tender.** The tender can be participated by **Authorized Dealers / Distributers / Importers.**
  
2. **Eligibility / Bid Qualification Criteria.** The bidder must prove his eligibility by completing the Bid Qualification Criteria as following: -

<b>Ser</b>	<b>Check List</b>	<b>Yes / No</b>
a.	Tender Fee	
b.	Bid Security	
c.	Valid Import License.	
d.	Copy of NTN / STRN and Active Tax Filler with 100% compliance	
e.	60 x Days Offer Validity	
f.	Confirmation of Delivery Period (120 x Days)	
g.	Non-Blacklisting Certificate (Original) on e-Stamp / affidavit of Rs 100	
h.	Certificate to accept all conditions of tender without exception	
i.	List of Major Clients	
j.	Hierarchy of the firm along with portfolio of owner & top management be attached	
k.	Complete Tech Data of stores	

3. **Special Conditions**

- a. Bidder must provide the Valid Import License.
- b. Quoted items should be Brand New.
- c. Firms must provide all relevant import documents to the purchaser.
- d. Offers must be prepared on firm's letter head, accompanied by the schedule to tender duly completed / signed / stamped by authorized executive (by name) of the firm without which the offer will not be entertained.
- e. During the currency of tendering procedure / contract of any addition taxes are imposed / reduce by Govt of Pakistan, then it will be paid / adjusted by the purchaser.
- f. Partial Items can be quoted.

4. **Rejection of Bid.** A bid will be rejected under following circumstances: -

- a. Bids not qualifying the bid evaluation criteria as mentioned above.
- b. Non responsive bid to any single required criteria / specification.
- c. Non submission of Tender Fee & Bid Security.
- d. Late submission of tender from given date & time.

5. **Particulars and Specifications.** Standard particulars, and specifications of stores are attached at **Annex 'A'**. The bid must conform to the asked specifications and acceptance criteria for each category / item.

6. **Delivery of Tender.** The original copy of the tender is to be enclosed in Single cover with Commercial Offer. The cover should be sealed and bear tender Enquiry Number and date of opening, while the outer cover should bear only address of this office without any indications.

7. **Date and Time for Submission of Tender.**

- a. Tender must reach at HQ NLC Rawalpindi by the date and time specified in tender notice by hand or by post.
- b. Tender must be dropped in the tender box before given time.
- c. NLC will not be responsible for delay occurring in post.

8. **Price**

- a. The firms must quote prices inclusive of all duties, taxes, packing, delivery charges and any other charges etc as per format attached at **Annex "B"**.
- b. The price must be quoted in **PAK RUPEES** in figures and words at the appropriate space of the schedule to tender.
- c. Additional information, if any, must be linked with entries on the schedule to tender.
- d. Prices quoted should be firm and final.
- e. Tax exemption (if any) may be provided with the tender documents if any.
- f. Firm's financial offer must be on letter head duly signed and stamped by executive authority, otherwise offer will be rejected.
- g. It is a FOR Gujranwala basis tender and payment will be made in PKR, therefore, any increase/decrease in US Dollar will not affect the price quoted by firms.
- h. The firms will supply store items as per given GSR. Any deviation will lead to cancelation of contract.

9. **Validity of Offers.** The validity period of quoted rates will be 60 x days from the date of opening the tender without any condition, extendable for further processing of the case, if required.

10. **Delivery Period.** Store must be delivered within **120 x days** after issuance of LOA (Letter of Acceptance) or Award of Contract (whichever is earlier) at prescribed location, beyond which Late Delivery Charges will apply. **The delays on part of Purchaser for any retardation will not be included in said period.**
11. **Packing.** Unless a method of packing is indicated in the specification in the schedule to the tender form. Contractors are at liberty to quote the additional alternative sizes and description of packs and these must be described the schedule of tender. Packing should be such that item shall not damage in transit till place of delivery. **SAFE**

**DELIVERY OF ITEMS IS SOLE RESPONSIBILITY OF FIRM**

12. **Inspection.** Inspection will be carried out by the consignee after delivery for any damages / breakages during transportation. Polymer will issue Inspection report accordingly thereof a bd of offr.
13. **Arbitration.** Any bidder feeling aggrieved by any act of procuring agency after submission of his bid and prior to award of the contract may lodge a written complaint to procurement agency under Rule - 48 PPRA. In case of any dispute, DG NLC will be Arbitrator.
14. **Risk and Expense.** Failure to supply the goods quoted or failure to meet the commitment made regarding delivery schedule, specifications, short supplies etc will authorize HQ NLC to purchase the items at firm's risk and cost.
15. **Force Majeure.** The supplier will not be held responsible for any delay occurring the supply of contracted stores due to event of force majeure such as Act of God, War, Riots, Civil Commotion's Strikes, which directly affecting the supply over which the supplier has no control. In such an event the contractor shall inform the Purchaser within 15 days of the happening in writing.

16. **Late Delivery.** will be imposed in item, not supply within stipulated time frame @ 2% per month. Maximum of 10% of cost of un supplied item can be charged against late Delivery.
17. **Terms of Payment**
- a. 100% Payment will be made after delivery and Final Inspection after and issuance of CRV (Certified Receipt Voucher) by the consignee.
  - b. No advance payment is allowed.
  - c. Partial Payments are Allowed.
18. **Tender Fee and Bid Security.** Both will be prepared in the shape of bank draft in favor of **National Logistics Corporation HQ Main Account** and submitted as following: -
- a. **Tender Fee.** Rs 2,000/- must be attached with offer.
  - b. **Bid Security.** Rs 200,000/- in sealed envelope (**mentioning Name of Bank and Draft Number & Date**) must be attached with offer.
19. **Bank Guarantee**
- a. Performance bank guarantee (as per Annex “C”) / certified cheque/ cashier’s or manager’s cheque, or bank draft 5% of the contract value must be provided / deposited by the successful firm for award of contract, within 15 days from the signing of the contract / issuance of Letter of Acceptance (whichever is earlier).
  - b. The Guarantee should be from a schedule bank of “AA” rating and valid till one month after warranty period.
  - c. Pay order / CDR of equal amount will be accepted on PBG.
20. **Warranty Period.** The **warranty period** of stores starting from the date of CRV will be for a period of 6 x months.

**HEADQUARTERS NATIONAL LOGISTICS CORPORATION**  
**GENERAL CONDITIONS GOVERNING CONTRACT**

1. Tender will be opened at HQ NLC (Sp Branch Conf Room) Rawalpindi at Date and Time mentioned in the newspaper add.
2. Tender will be submitted in accordance with PPRA Rule **36 (b)** i.e. Single Stage - Two Envelope Procedure.
3. Detail of Items required to be procured is as under: -

<b>Ser</b>	<b>Item</b>	<b>Q/U</b>	<b>Quantity</b>	<b>Country of Origin</b>
1.	Ribbed Smoke Sheet (RSS 3)	Kgs	10,000	Indonesia/Malaysia Vietnam, Sri Lanka or equivalent
2.	Re Claim Natural	Kgs	20,000	PAK, Qatar, China or equivalent
3.	Steric Acid	Kgs	2,000	Pak, or equivalent
4.	Phenolic Resin	Kgs	1,000	China or Equivalent
5.	Calcium Carbonate Grinded un- quoted 1000-1200 mesh	Kgs	60,000	Pak, or equivalent
6.	Rubber Process Oil	Kgs	3,000	Pak, or equivalent
7.	Nylon Tyre Cord Fabric 840/D	Kgs	1,000	China or Equivalent
8.	Polythene Plastic Sheet (White) (30"x57"x0.16mm)	Kgs	2,000	China or Equivalent
9.	Flap Rust Ring (Numbers)	Nos	40,000	Pak, or equivalent
10.	Butyl Tube 11.00/1200 R20 13 Inch Width 4 kgs Wt (8MPA)	Nos	3,000	China or Equivalent
11.	High Density Polyethylene (HDPE PE-100)	Kgs	20,000	Saudi Arabia, UAE, Qatar, Kuwait, Korea or Equivalent
12.	High Density Polyethylene (HDPE PE-TR-144)	Kgs	5,000	Saudi Arabia, UAE, Qatar, Kuwait, Korea or Equivalent
13.	High Density Polyethylene (HDPE PE-952)	Kgs	25,000	Saudi Arabia, UAE, Qatar, Kuwait, Korea or Equivalent
14.	High Density Polyethylene (HDPE ME-340)	Kgs	10,000	Saudi Arabia, UAE, Qatar, Kuwait, Korea or Equivalent

15.	Linear Low-Density Polyethylene (LLDPE 118W)	Kgs	40,000	Saudi Arabia, UAE, Qatar, Kuwait, Korea or Equivalent
16.	Polypropylene Random Copolymer (PPRC R-200)	Kgs	100,000	Saudi Arabia, UAE, Qatar, Kuwait, Korea or Equivalent
17.	High Density Polyethylene (HDPE Crushed / Scrap PE-80)	Kgs	200,000	Pak, or equivalent

**NL-3**

Address\_\_\_\_\_

Telephone\_\_\_\_\_

Code Used\_\_\_\_\_

From: \_\_\_\_\_

To:

**THE DIRECTOR GENERAL  
NATIONAL LOGISTICS CORPORATION  
QMG BRANCH, R.A. BAZAR GHQ, RAWALPINDI**

Dear Sir,

I/We hereby offer to supply to the Director General NLC, the stores as per detail in the Scheduled hereto or such portion thereof as you may specify in the contract at the prices given in the said schedule and agree to hold this offer open till \_\_\_\_\_ . I/We shall be bound by a communication of acceptance dispatched within the prescribed time.

2. I/We have understood the instructions to Tenders and Conditions of Contract as laid down in form NL-2 to "General Conditions Governing Contracts" and have thoroughly examined the specificity/drawing and or pattern quoted in the schedule hereto and am/are fully aware to the nature of the stores required and my/our offer is to supply stores strictly in accordance with the requirements.

3. Recommended technical manual/ data are also enclosed with the offer.

4. The following pages have been added to and form part of this tender: -

Your faithfully

(Signature of Tendered)

Address\_\_\_\_\_

Dated \_\_\_\_\_

Signature of witness\_\_\_\_\_

Address\_\_\_\_\_

# RIBBED SMOKED SHEETS

## (RSS-3)

Property	Test results							Test Methods
	1							
Dirt (retained on 45µm aperture), %m/m	0.092							TCVN 6089:2016 (ISO 249:2016)
Ash, %m/m	0.54							TCVN 6087:2010 (ISO 247-1:2018)
Volatile matter, %m/m	0.67							TCVN 6088-1:2014 (ISO 248-1:2018)
Nitrogen, %m/m	0.46							TCVN 6091:2016 (ISO 1656:2019)
Initial Wallace Plasticity (Po)	52.0							TCVN 8493:2010 (ISO 2007:2016)
PKI ( $P_{10} / P_{50}$ ) x 100%	73							TCVN 8494:2020 (ISO 2930:2017)
Levibond colour:	-							TCVN 6093:2013 (ISO 4660:2011)
Mooney Viscosity MI (1" x 4") 100°C	-							TCVN 6090-1:2015 (ISO 289-1:2015)
Rheometric Cure (160°C, 1" arc 100rpm, ACS1:								TCVN 12010:2017 (ISO 6502:2016)
Torque Min. (dNm)	-							
Torque Max.(dNm)	-							
Scorch Time ts1(m/s)	-							
Optimum cure time t90 (m/s)	-							

# RECLAIM RUBBER

## PRODUCT SPECIFICATION Chemical Composition

Acetone Extract %	JIS K 6350	< 18
Ash Content %	TGA	< 8
Carbon Black %	TGA	23 - 33
Rubber	TGA	45 - 55
Hydrocarbon %		
Physical Properties		
Specific Gravity	JIS K 6313	≤ 1.18
Mooney Viscosity	JIS K 6300	≤ 70
ML(1+4) at 100°C		
Hardness Duro A	JIS K 6253	55 - 61
Tensile Strength	JIS K 6251	≥ 7.00
MPa		
Elongation at break	JIS K 6251	≥ 230
%	JIS K 6313	
Mixing Rubber		
Formulation		

# STEARIC ACID

## Technical Data Sheet

**Technical Name:** **STEARIC ACID R**  
Stearic Acid R

**CAS #:** 57-11-4

**Appearance:** White Solid

**Technical Parameters:**

	<b>Min</b>	<b>Max</b>
Iodine Value g/100g		10
Sapon Value mg/g	193	211
Acid Value	193	213
Color, FAC		6
Titer C	52	64
Moisture		1.5%

# PHENOLIC RESIN

Physical Properties	Units	Test	G-10	G-11
Density	lb/in <sup>3</sup> g/cm <sup>3</sup>	D792	0.065 1.80	0.065 1.80
Water Absorption, 24 hrs.	%	D570	0.10	0.20

Mechanical Properties	Units	Test	G-10	G-11
Tensile Strength	psi	D638	lengthwise- 45,000 crosswise- 38,000	lengthwise- 43,000 crosswise- 37,000
Flexural Strength	psi	D790	lengthwise- 75,000 crosswise- 65,000	lengthwise- 80,000 crosswise- 70,000
Flexural Modulus	Kpsi	D790	lengthwise- 2,700 crosswise- 2,400	lengthwise- 3,000 crosswise- 2,700
Compressive Strength	psi	D695	65,000	63,000
Hardness Rockwell M	-	D785	M110	M112
Izod Impact Notched	ft-lb/in	D256	lengthwise- 14.0 crosswise- 12.0	lengthwise- 12.0 crosswise- 9.0

Thermal Properties	Units	Test	G-10	G-11
Coefficient of Linear Thermal Expansion	$\times 10^{-5}$ in./in./°F	D696	lengthwise- 0.55 crosswise- 0.66	lengthwise- 0.72 crosswise- 0.83
Max. Use Temperature	°F/°C	-	284/140	329/165
Thermal Conductivity	BTU-in/ft <sup>2</sup> -hr-°F $\times 10^{-4}$ cal/cm-sec-°C	C177	2.0 7.0	2.0 7.0
Flammability Rating	-	UL94	H-B	H-B

Electrical Properties	Units	Test	G-10	G-11
Dielectric Strength	(V/mil) short time, 1/8" thick	D149	800	900
Dielectric Constant	@1 MHz	D150	5.0	4.5
Dissipation Factor	@1 MHz	D150	0.019	0.020
Arc Resistance	sec	D495	100	120

# Calcium Carbonate

## PRODUCT DESCRIPTION

Chemical Name: Calcium Carbonate

Chemical Formula:  $\text{CaCO}_3$

Description: This is a fine white Uncoated Calcium Carbonate powder.  
It is processed from white marble.

## PHYSICAL PROPERTIES

Specific Gravity:	<b>2.7</b>
Hardness (Mohs):	<b>3.0</b>
Oil Absorption:	<b>17</b>
Whiteness:	<b>95±</b>
Moisture Content:	<b>0.09</b>
pH of 10% Solution:	<b>8.5±</b>

## PARTICLE SIZE

Top Cut (D-97)	<b>19.642</b>
Mean Particle Size (D-50)	<b>3.036</b>

## CHEMICAL ANALYSIS

$\text{CaCO}_3$	<b>98.5</b>
MgO	<b>0.08</b>
$\text{SiO}_2$	<b>0.23</b>

# **RUBBER PROCESS OIL (AROMATIC)**

<b>CHARACTERISTICS</b>	<b>AROMATIC</b>
<b>COLOUR,ASTM.(MAX)</b>	<b>Dark Green</b>
<b>DENSITY @ 29.5 °C.gm/ml</b>	<b>0.9900</b>
<b>KINEMATIC VISCOSITY @ 40 °C, cSt.</b>	<b>20 to 30</b>
<b>FLASH POINT COC, °C.(MIN)</b>	<b>200 Min</b>
<b>POUR POINT, °C.</b>	<b>30</b>
<b>ANILINE POINT, °C.</b>	<b>45C – 50C</b>
<b>NEUTRALISATION NUMBER mg KOH/gm of oil. (max.)</b>	<b>0.10</b>
<b>V.G.C. (VISCOSITY GRAVITY CONSTANT)</b>	<b>0.9350</b>

# NYLONE PLY CORD

## 840/D-2

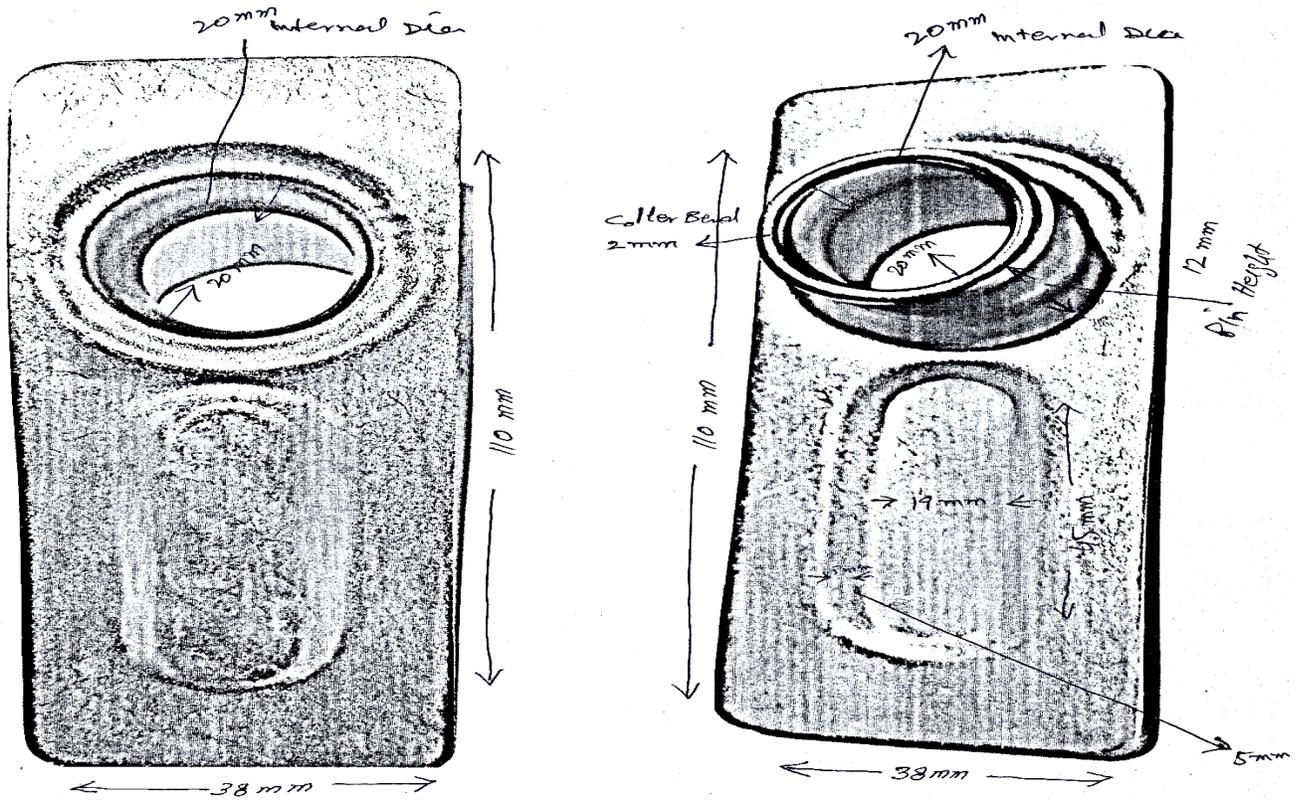
Material : NYLON-6

Test Items	Unit	Specification 840/D2
Breaking Strength <Warp>	Kg/Card	Min 6.2
Breaking Strength <Weft>	Kg/Card	Min 5.6
Shrinkage @ 150°C x30min	%	Max 4.5
Guage	Mm	.58±0.05
Dip Pick Up	%	Min 9.0
Adhesion Peeling	Kg/25mm	Min 17.0

# **POLYETHYLENE PLASTIC** **SHEET**

<b>ASTM or UL test</b>	<b>Property</b>	<b>HDPE</b>
D792	Density (lb/in <sup>3</sup> ) (g/cm <sup>3</sup> )	0.035 0.96
D570	Water Absorption, 24 hrs (%)	<0.01
D638	Tensile Strength (psi) at 72°F	4,600
D638	Tensile Strength (psi) at 150°F	400
D638	Tensile Modulus (psi)	200,000
D638	Tensile Elongation at Break (%)	400
D732	Shear Strength (psi)	-
D785	Hardness, Shore D	D69
D256	IZOD Notched Impact (ft-lb/in)	1.3
D696	Coefficient of Linear Thermal Expansion (x 10 <sup>-5</sup> in./in./°F)	6

# Flap Rust Ring



Key  
Length — 110 mm  
width — 38 mm  
Pin dia — 20 mm  
Pin Hole Height 12 mm  
Pin collar bead 2 mm  
Plate dia 19x45x5 mm  
Thickness Gauge 23 SWG

# Tube Inner 12.00/11.00 R20

<b>Material</b>	<b>Size</b>	<b>Width</b>	<b>Weight</b>	<b>Tensile Body</b>	<b>Tensile Joint</b>	<b>Nozzle /Valve</b>
Butyl	11.00/12.00R20	13 Inch	04 Kgs	7 to 8 MPA	4 to 5MPA	TR179A

# HDPE PE-100

## 1665 PHYSICAL PROPERTIES

<b>Property</b>	<b>Typical Value*</b>	<b>Test Method</b>
Density (Compound)	960kg/m <sup>3</sup>	ISO 1183
Melt Flow Rate (190°C/5.0kg)	0.25g/10min	ISO 1133
Tensile Modulus (1mm/min)	1100MPa	ISO 527
Tensile Strain at Break (50mm/min)	>600%	ISO 527-2
Tensile Stress at Yield (50mm/min)	25MPa	ISO 527-2
Carbon Black Content	≥2%	ISO 6964
Carbon Black Dispersion	≤3	ISO 18553
Oxidation Induction Time (210°C)	≥20mins	ISO 11357-6
Resistance to Rapid Crack Propagation, S4 test <sup>+</sup>	>10bar	ISO 13477
Resistance to Slow Crack Growth (9.2bar, 80°C)	>1000hrs	ISO 13479

# HDPE TR-144

Nominal Physical Properties *	ASTM	Unit	Value
Density	D792	g/cm <sup>3</sup>	0.946
Melt Index, Condition 190 C°/ 2.16 kgs	D1238	g/10min	0.18
Flexural Modulus, Tangent – 16:1 span:depth, 12.7 mm/min	D790	MPa	1150
ESCR, Condition B (100 % Igepal), F50	D1693	h	> 1,000
Brittleness Temperature, Type A clamp, Type I specimen	D746		
Typical Film Properties**	D1709	□C	<-75
Dart Drop (66cm)	D882		
Tensile Yield Strength, 50.8 mm/min	D882	g	
	D1922	MPa	90
Elongation at Break, 50.8 mm/min		%	MD: 24 TD: 26
Elmendorf Tear Strength		g	MD: 480 TD: 640
			MD: 19 TD: 270

# HDPE PE-952

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>POLYMER PROPERTIES</b>			
Melt Flow Rate <sup>(1)</sup>			
at 190 °C and 2.16 kg <sup>(1)</sup>	0.05	dg/min	ISO 1133
at 190 °C and 21.6 kg	9	dg/min	ISO 1133
Density	952	kg/m <sup>3</sup>	ASTM D1505
<b>FILM PROPERTIES</b>			
Dart Impact F50 <sup>(2)</sup>	180	g	ASTM D1709
Tear strength TD Elmendorf	60	g/μm	ASTM D1922
Tear strength MD Elmendorf	12	g/μm	ASTM D1922
Tensile test film			
Strain at break TD	550	%	ASTM D882
Strain at break MD	400	%	ASTM D882
Stress at break MD <sup>(2)</sup>	60	MPa	ASTM D882
Stress at break TD	56	MPa	ASTM D882
Modulus of elasticity TD	1500	MPa	ASTM D882
Yield stress TD	31	MPa	ASTM D882
Yield stress MD	33	MPa	ASTM D882
Modulus of elasticity MD	1250	MPa	ASTM D882

# LLDPE 118W

Properties	Units SI	Values	Test methods
<b>Polymer properties</b>			
<b>Melt flow rate (MFR)</b> at 190 °C and 2.16 kg	dg/min	<b>1.0</b>	ISO 1133
<b>Density</b> <sup>1)</sup>	kg/m <sup>3</sup>	<b>918</b>	ISO 1183 (A)
<b>Formulation</b>			
<b>Slip</b>	mg/kg	<b>1500</b>	SABIC method
<b>Anti block</b>	mg/kg	<b>3500</b>	SABIC method
<b>Anti oxidant</b>		<b>+</b>	SABIC method
<b>Optical properties</b>			
<b>Gloss (45°)</b>	%	<b>42</b>	ASTM D 2457
<b>Haze</b>	%	<b>20</b>	ASTM D 1003A
<b>Film properties</b>			
<b>Impact strength</b>	kJ/m	<b>22</b>	ASTM D 4272
<b>Tear strength TD</b>	kN/m	<b>120</b>	ISO 6383-2
<b>Tear strength MD</b>	kN/m	<b>40</b>	ISO 6383-2
<b>Puncture resistance</b>	J/m	<b>380</b>	SABIC method
<b>Tensile test film</b>			ISO 527-3
Yield stress TD	MPa	<b>11</b>	
Yield stress MD	MPa	<b>11</b>	
Stress at break TD	MPa	<b>30</b>	
Stress at break MD	MPa	<b>37</b>	
Strain at break TD	%	<b>800</b>	
Strain at break MD	%	<b>600</b>	
Modulus of elasticity TD	MPa	<b>180</b>	

Modulus of elasticity MD	MPa	<b>160</b>	
<b>Coefficient of friction</b>	-	<b>0.1</b>	ISO 8295
<b>Blocking</b>	g	<b>15</b>	SABIC method
<b>Re-blocking</b>	g	<b>10</b>	SABIC method
<b>Thermal properties</b>			
<b>Vicat softening temperature</b>			ISO 306
at 10 N (VST/A)	°C	<b>101</b>	
<b>DSC test</b>			SABIC method
melting point	°C	<b>121</b>	

# PPRC R-200

<b>Resin Properties</b>	<b>Method</b>	<b>Value</b>	<b>Unit</b>
Melt Index(230°C, 2.16kg)	ASTM D1238	<b>0.25</b>	g/10min
Density	ASTM D792	<b>0.90</b>	g/cm <sup>3</sup>
Tensile Strength at Yield	ASTM D638	<b>270</b>	kg/cm <sup>2</sup>
Flexural Modulus	ASTM D790	<b>9,000</b>	kg/cm <sup>2</sup>
Notched Izod Impact Strength(23°C / -10°C)	ASTM D256	<b>N.B / 5.0</b>	kg-cm/cm
Rockwell Hardness	ASTM D785	<b>75</b>	R-Scale
Heat Deflection Temperature	ASTM D648	<b>90</b>	°C
Vicat Softening Point	ASTM D1525	<b>130</b>	°C
Mean Coefficient of Linear Thermal Expansion(0°C-80°C)	Dilatometer	<b>1.5*10<sup>-4</sup></b>	K-1

# HDPE ME-3441

## PHYSICAL PROPERTIES

Property	Typical Value <sup>+</sup>	Test Method
Density (Compound)	944kg/m <sup>3</sup>	ISO 1183
Melt Flow Rate (190°C/5.0kg)	0.80g/10min	ISO 1133
Tensile Modulus (1mm/min)	800MPa	ISO 527
Tensile Strain at Break (50mm/min)	>600%	ISO 527-2
Tensile Stress at Yield (50mm/min)	19MPa	ISO 527-2
Pigment Dispersion	≤3	ISO 18553
Oxidation Induction Time (210°C)	≥20mins	ISO 11357-6
Resistance to Slow Crack Growth (8.0bar, 80°C)	>5000hrs	ISO 13479

+Pc at 0°C, test pipe 250mm SDR11

\*Data should not be used for specification work

## PROCESSING GUIDELINES

### Extrusion

The actual extrusion conditions will depend on the type of equipment used. They will also depend on size and wall thickness of the pipe produced. The following conditions may be used as a guide when starting up the extruder:

Cylinder	190 – 210°C
Head	200 – 210°C
Die	200 – 210°C
Melt temperature	200 – 220°C

Specific recommendations for processing conditions can be determined only when the application and type of equipment are known. Please contact your local Borouge representative for such particulars.

**Annex "B"**

Tender No: \_\_\_\_\_ / CHEMICAL & GENERAL STORE ITEMS / NLC/2026

1. Financial offer must be as per following formats: -

Ser	Item	U/M	Quantity	Country of origin	Unit Price	Sales Tax	Total Price Including all Taxes
1.	Ribbed Smoke Sheet (RSS 3)	Kgs	10,000	Indonesia/Malaysia Vietnam, Sri Lanka or equivalent			
2.	Re Claim Natural	Kgs	20,000	PAK, Qatar, China or equivalent			
3.	Steric Acid	Kgs	2,000	Pak, or equivalent			
4.	Phenolic Resin	Kgs	1,000	China or Equivalent			
5.	Calcium Carbonate	Kgs	60,000	Pak, or equivalent			
6.	Rubber Process Oil	Kgs	3,000	Pak, or equivalent			
7.	Nylon Tyre Cord Fabric 840/D	Kgs	1,000	China or Equivalent			
8.	Polythene Plastic Sheet	Kgs	2,000	China or Equivalent			
9.	Flap Rust Ring (Numbers)	Nos	40,000	Pak, or equivalent			
10.	Butyl Tube 11.00/1200 R20	Nos	3,000	China or Equivalent			
11.	High Density Polyethylene (HDPE PE-100)	Kgs	20,000	Saudi Arabia, UAE, Qatar, Kuwait, Korea or Equivalent			
12.	High Density Polyethylene (HDPE PE-TR- 144)	Kgs	5,000	Saudi Arabia, UAE, Qatar, Kuwait, Korea or Equivalent			
13.	High Density Polyethylene (HDPE PE-952)	Kgs	25,000	Saudi Arabia, UAE, Qatar, Kuwait, Korea or Equivalent			
14.	High Density Polyethylene (HDPE ME-340)	Kgs	10,000	Saudi Arabia, UAE, Qatar, Kuwait, Korea or Equivalent			

15.	Linear Low-Density Polyethylene (LLDPE 118W)	Kgs	40,000	Saudi Arabia, UAE, Qatar, Kuwait, Korea or Equivalent			
16.	Polypropylene Random Copolymer (PPRC R-200)	Kgs	100,000	Saudi Arabia, UAE, Qatar, Kuwait, Korea or Equivalent			
17.	High Density Polyethylene (HDPE Crushed / Scrap PE-80)	Kgs	200,000	Pak, or equivalent			

**Note**

- a. Price is required to be quoted on FOR Basis at NLC Polymer Gujranwala, which must include delivery charges, and all taxes / duties. Brochure / manufacture specifications (in original) must be attached.
- b. Firm must submit their financial offer as per above mentioned schedule to tender.

Annex "C"

Guarantee No. : [Insert]  
Date of Issuance : [Insert]  
Date of Expiration : [Insert]  
Amount of L/G : [Insert amount]  
[Insert amount in words]  
Name of the Principal (Contractor) : [Insert]  
Address of the Principal (Contractor) : [Insert]  
Name of the Guarantor/Warranter  
(Bank) : [Insert name]  
Address of the Guarantor/Warranter  
(Bank) : [Insert branch address]  
Letter of Acceptance : [Insert letter No. and date]  
To (Employer) : National Logistic Corporation (NLC), HQ NLC  
Harding Road, R.A Bazar, Saddar,  
Rawalpindi.

**WHEREAS**, pursuant to the submission of a successful bid by M/s [Insert Entity name] (hereinafter referred to as the "**Contractor**"), a [legal status of the entity] registered under [insert relevant law], having its registered office at [Insert address], the National Logistics Corporation (hereinafter referred to as the "**Employer**"), on [Insert date], issued a letter of acceptance (hereinafter referred to as the "**LOA**");

**AND WHEREAS**, in compliance with the terms and conditions of the LOA, and upon the request of the Contractor, [Insert Bank Name] (hereinafter referred to as the "**Guarantor**") hereby undertakes to pay the amount due and payable under this guarantee (hereinafter referred to as the "**Guarantee**") without any demur, by way of a written demand notice (hereinafter referred to as the "**Demand Notice**") in order to secure the performance of the Contractor's obligations under the LOA, including, *inter alia*, [Insert a brief description of the obligations] (hereinafter referred to as the "**Guaranteed Obligations**");

**AND WHEREAS**, the condition precedent of this Guarantee is such that the Contractor has accepted the Employer's LOA;

**NOW THEREFORE**, in pursuance of the terms and conditions of the LOA, and at the request of the Contractor, we hereby affirm that we the Guarantor, as named above, are responsible to you, on behalf of the Contractor, for a total amount of [Insert amount of Guarantee] [Amount in words] (hereinafter referred to as the "**Guaranteed Sum**"), and held firmly bound unto the Employer for the foregoing amount. We undertake to pay the Employer, upon its first written application and without cavil or argument within three (03) days of the receipt of the written demand (the "**Due Date**"), any sum(s) within the ambit of [Amount of Guarantee], without requiring the Employer to prove any specific grounds or reasons for the demand put forth for the sum specified therein;

**PROVIDED THAT**, the Guarantor hereby binds itself unconditionally and irrevocably, and undertakes and guarantees to pay the Guaranteed Sum, as primary obligor and not merely as surety, without protest or demur and without reference, notice or recourse to the Contractor or any other person, and hereby expressly waives all

rights to deny its obligation to the Employer irrespective of any dispute, difference or disagreement between the Contractor and Employer or contest by any other party or person;

**PROVIDED FURTHER THAT**, at any time during the validity of this Guarantee, the Employer may, at its sole discretion and decision, demand payment of the entire Guaranteed Sum, or any portion thereof, from the Guarantor. The decision of the Employer as to the Contractor's default, delay, or failure in performing the Guaranteed Obligations shall be final and binding on the Guarantor, which shall not be questioned by the Guarantor in any manner whatsoever;

**PROVIDED FURTHER THAT**, this Guarantee shall remain in full force and be effective for a period up to **[Insert duration]**, and any extension(s) thereof, and the Guarantor's obligations under this Guarantee shall be for payment of the Guaranteed Sum or part thereof as may be demanded by the Employer from time to time;

**PROVIDED FURTHER THAT**, the Employer may, if and when and in such manner as the Employer in its sole discretion deems appropriate, grant time or other indulgence to or accept or make any composition or arrangement with the Contractor and/or vary, renew, discharge, realize, release, enforce or deal with any other securities, guarantees, obligations, decrees, contracts, or agreements, now or hereinafter made or held by the Employer, and such acts shall not affect in any way whatsoever the Employer's rights under this Guarantee, and shall not affect in any way whatsoever the Guarantor's liability hereunder, or discharge the Guarantor from its obligations under this Guarantee;

**PROVIDED FURTHER THAT**, demands under this Guarantee may be made from time to time in accordance with its terms. Partial payments of the Guaranteed Sum shall not discharge this Guarantee and this Guarantee shall remain in full force and effect in accordance with its terms for the difference from time to time between the aggregate total of the partial payments made and the Guaranteed Sum;

**PROVIDED FURTHER THAT**, no delay or failure to exercise any right or remedy under this Guarantee by the Employer shall constitute a waiver of such right or remedy. No single or partial exercise of any right or remedy shall preclude any other or further exercise thereof or of any other right or remedy. No waiver by the Employer shall be valid unless made in writing;

**PROVIDED FURTHER THAT**, no set-off, counter claim, reduction, or diminution of any obligation that the Guarantor has or may have against the Employer shall be available to it against the Employer in connection with any of its obligations to the Employer under this Guarantee. The Guarantor shall make all payments under this Guarantee in **[Insert currency]** and in full, without set-off or counterclaim and free and clear of any deductions or withholdings in immediately available, freely transferable, cleared funds for value on the Due Date to the Employer, provided that if the Guarantor is required to make any deduction or withholding from such payments under applicable law, it shall pay to the Employer such additional amount necessary to ensure that the Employer receives an amount equal to the amount which it would have received had no such deduction or withholding been made. In the event under the laws of the Islamic Republic of Pakistan the payment of the Guaranteed Sum in a currency other than Pakistan Rupees is prohibited or becomes unlawful, or the due execution, validity, enforceability or performance of the obligations of the Guarantor hereunder is questioned by any Court, the State Bank of Pakistan or other competent authority or agency with jurisdiction over the Guarantor on the grounds of the Guaranteed Sum being denominated in a foreign currency, this Guarantee shall secure and shall be deemed always to have secured the Guaranteed Sum in equivalent Pakistan Rupees calculated at the average of the National Bank of Pakistan Telegraphic Transfer & On – Demand selling rate for United States Dollars

prevalent on the date of issuance of this Guarantee and payment of the whole or part of the Guaranteed Sum as demanded by the Employer may in such event be made by the Guarantor in Pakistan Rupees;

**PROVIDED FURTHER THAT**, the Guarantor hereby declares and confirms that under its constitution and applicable laws and regulations, it has the necessary power and authority, and has obtained all necessary authorizations, approvals and consents thereunder to enter into, execute, deliver and perform the obligations it has undertaken under this Guarantee, which obligations are valid and legally binding on and enforceable against the Guarantor under the laws of the Islamic Republic of Pakistan. In addition thereto, the signatory to this Guarantee are the Guarantor's duly authorized officers;

**PROVIDED FURTHER THAT**, this Guarantee shall expire at the official closing of the counters of the Guarantor, [Name of the Branch] [City], on [Expiry date] (hereinafter referred to as the "**Expiry Date**"). Except for demands made by the Employer under this Guarantee on or before the Expiry Date, the Guarantor shall stand fully discharged and released from any and all obligations, claims and liabilities under this Guarantee whether or not this instrument of Guarantee is returned to the Guarantor;

**IN WITNESS THEREOF**, the Guarantor executes this instrument which shall be unconditional and irrevocable, under its seal per his bounden duty on the date specified above, the name and corporate seal of the Guarantor hereto affixed and these presents duly signed by its undersigned representative, pursuant to the authority of its governing body.

For and on behalf of [insert bank name] and [insert branch address]

Dated [Insert date], [Insert year], at [Insert location]

**Witnesses:**

**Witness # 1:**

**Witness # 2:**

Name: \_\_\_\_\_

Name: \_\_\_\_\_

CNIC No. \_\_\_\_\_

CNIC No. \_\_\_\_\_

Address: \_\_\_\_\_

Address: \_\_\_\_\_

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_