



**“SUPPLY AND DELIVERY OF MATERIALS FOR THE APPLICATION OF THERMOPLASTIC PAVEMENT MARKINGS ON VARIOUS LOCATIONS WITHIN METRO MANILA”**

**BID BULLETIN NO. 1  
 04 June 2021**

All eligible bidders are hereby informed of the following changes, amendments, and clarifications on the bid documents for the above-mentioned project.

**Amendments/Clarifications:**

1. To change the delivery of goods from “*within Thirty (30) calendar days upon issuance of Notice to Proceed*” to “*within Sixty (60) calendar days upon issuance of Notice to Proceed*”.
2. To correct Section VI and Section VII being posted:

**Section VI. Schedule of Requirements**

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

Item No.	Description	Unit	Quantity	Delivered Weeks/Months
	Supply and Delivery of Materials for the Application of Thermoplastic Pavement Markings on Various Locations within Metro Manila			
1	Thermoplastic Powder Paint (White) (25 kgs / bag)	bag	1,400	Within 60 C. D. upon issuance of Notice to Proceed / Purchase Order
2	Thermoplastic Powder Paint (Yellow) (25 kgs / bag)	bag	730	
3	Retro-Reflective Glass Beads (25 kgs / bag)	bag	97	
4	Titanium Dioxide (25 kg/bag)	bag	1	
5	Primer (17 kgs / pail)	pail	49	
6	LPG – 11 kgs. (content only)	tank	55	
7	LPG – 50 kgs. (content only)	tank	12	
***Nothing Follows***				

**Section VII. Technical Specifications**

Item No.	Description	Unit	Quantity	Statement of Compliance
	Supply and Delivery of Material for the Application of Thermoplastic Pavement Markings on Various Locations within Metro Manila			
1	Thermoplastic Powder Paint (White) (25 kgs / bag)	bag	1,400	<p>Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A Statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidders statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the provisions of ITB Clause 3.1(a)(ii) and or GCC Clause 2.1(a)(ii).</p>
2	Thermoplastic Powder Paint (Yellow) (25 kgs / bag)	bag	730	
3	Retro-Reflective Glass Beads (25 kgs / bag)	bag	97	
4	Titanium Dioxide (25 kgs / bag)	bag	1	
5	Primer (17 kgs / pail)	pail	49	
6	LPG - 11 kgs. (content only)	tank	55	
7	LPG - 50 kgs. (content only)	tank	12	
<b>***Nothing Follows***</b>				

**Delivery Period: Sixty (60) Calendar Days**

## I. Material Requirements

- a. ReflectORIZED Thermoplastic Pavement Material shall be homogeneously composed of pigment, filler, resins and glass reflectorizing spheres. The thermoplastic material shall be available to both white and yellow.
- b. Glass Reflectorizing Spheres (Glass Beads). Premix beads shall be uncoated and conform to AASHTO M 247-09.
  - i. Gradation. The beads minimum gradation requirements shall be Type 1 in accordance with AASHTO M-247-09 given in Table 1.
  - ii. Roundness. The beads shall have minimum of 90 percent true sphere.
  - iii. Refractive Index. The beads shall have minimum refractive index of 1.50.

**Table 1 – Gradation of Glass Beads**

Sieve Designation, mm	Type I AASHTO M-247-09
1.18	100
1.00	-
0.850	95-100
0.710	-
0.600	75-95
0.425	-
0.300	15-35
0.180	0-5
0.150	0-5

## II. General Requirements

Shall be in accordance with the requirements given in Table 2.

**Table 2 – Requirements**

Property		White	Yellow
Specific Gravity, maximum		2.15	
Composition			
Resin	Binder, minimum	18.0	18.0
Glass Reflectorizing Sphere	Glass Beads	30-40	30-40
Filler	Calcium carbonate and inert fillers, maximum	42.0	See note
Pigment	Titanium Dioxide, minimum	10.0	-
	Yellow, minimum	-	See note

Physical Characteristics:		
Color after heating for four (4) hours $\pm$ 5 min. @ 218 $\pm$ 2°C, Daylight Reflectance @ 45° - 0°, minimum	75%	45%
Drying time, minutes, maximum Air Temp. 10 $\pm$ 2°C Air Temp. 32 $\pm$ 2°C	2.0 10.0	
Cracking Resistance @ Low Temperature – after heating for four (4) hours $\pm$ 5 min. @ 218 $\pm$ 2°C	No cracks	
Impact Resistance – after heating for four (4) hours $\pm$ 5 min. @ 218 $\pm$ 2°C and forming test specimens, minimum	115.0 mm/kg	
Softening Point – after heating for four (4) hours $\pm$ 5 min. @ 218 $\pm$ 2°C	102.5 $\pm$ 9.5°C	
Flowability - after heating for four (4) hours $\pm$ 5 min. @ 218 $\pm$ 2°C, maximum	18%	21%
Yellowness index, maximum	0.12	-
Flowability – Extended Heating - after heating for four (4) hours $\pm$ 5 min. @ 218 $\pm$ 2°C, maximum	28%	
Bond Strength to Portland Cement Concrete - after heating for four (4) hours $\pm$ 5 min. @ 218 $\pm$ 2°C, maximum	1.24 MPa	
Storage Life	1 Year	

Note: Amount of Yellow Pigment, calcium carbonate, and inert fillers shall be at the option of the manufacturer, providing all other requirements of AASHTO M 249-12 are met. (Source: DPWH Department Order No. 103 Series of 2013)

This Bid Bulletin shall constitute an integral part of the Bid Documents of the Project.

APPROVED BY:

**ASEC. JOSE V. CAMPO**  
BAC Chairman