



বাংলাদেশ বিজ্ঞান ও শিল্প গবেষণা পরিষদ (বিসিএসআইআর)
BANGLADESH COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH
(BCSIR)

জীবনের জন্য বিজ্ঞান

Analysis Report

Institute Name: Pilot Plant & Process Development Centre (PP&PDC)	
Analytical Service Cell Ref No: PP-102	Unit (Lab/Inst.) Ref No: PP-102
Lab ID: PP-102	Sample Receiving Date: 02.12.2025
Sample ID: PP-102	
Sample Description: Sludge Sprayer Gun & Sludge Sprayer Nozzle of BESSCO POWER LTD.	
Clients Details: মোঃ মোমতাজুর রহমান, নির্বাহী প্রকৌশলী, দাশেরকান্দি পয়ঃশোধনাগার, ঢাকা পানি সরবরাহ ও পয়ঃনিষ্কাশন কর্তৃপক্ষ, আফতাবনগর, খিলগাঁও, ঢাকা-১২১৯।	
Number of Sample: 02	

Report Details

Dimensional Measurements

Sl No.	Description	Parameters	Measurements
1	Outer Diameter (mm)	Ø160	158.63 ± 0.05
2	Inner Diameter (mm)	Ø115	115.33 ± 0.05
3	Sludge inlet external connection diameter (mm)	DN40	41.25 ± 0.08
4	Sludge inlet internal inlet (mm)	Ø28	28.20 ± 0.27
5	Compressed air inlet external connection diameter (mm)	DN40	40.42 ± 0.08
6	Air internal inlet (mm)	Ø18	18.09 ± 0.45

Chemical Composition (wt%)

Specimen	C	Si	Mn	P	S	Cu	Cr	Ni	Mo	Fe	Grade
Sludge Sprayer Gun	0.377	0.222	0.669	0.004	0.010	0.014	0.902	0.027	0.004	Balance	Cr40 Steel

Specimen	C	Si	Mn	P	S	Cu	Cr	Ni	Mo	Fe	Grade
Outer Portion of the Sludge Sprayer Nozzle	0.080	0.495	1.498	0.001	0.001	0.187	17.39	9.84	0.255	Balance	SS304

Specimen	Material
Inner Portion of the Sludge Sprayer Nozzle	Tungsten Carbide

Analytical Service Cell (ASC)

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Comment:

1. The chemical composition of the submitted Sludge Sprayer Gun sample from BESSCO POWER LTD corresponds to Cr40 grade.
2. The chemical composition of the outer portion of the submitted Sludge Sprayer Nozzle from BESSCO POWER LTD corresponds to SS304 grade.
3. The inner portion of the submitted Sludge Sprayer Nozzle from BESSCO POWER LTD is composed of Tungsten Carbide.

Shad Inquiad
18-12-2025

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Director
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পরিচালক
পিপি এন্ড পিডিসি
বিসিএসআইআর, ঢাকা

Note:

- a. The results reported here pertained to the sample received in this laboratory only.
- b. Complain and/or query regarding delivered test report should be lodged within one month of report delivery date.
- c. The laboratory is not responsible for the data quality affected due to sampling, transporting and storage conditions of the sample(s) maintained before received in the laboratory.
- d. The report shall not be reproduced/ published partly or fully without prior approval of the authority.

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