



Trial report

Date	April 13th 2021	Weather	Fine	Temperature	25	Humidity	62%
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		Name of material	Magnesium Fluoride	Bulk density	0.86
Type of materials	Powder	Image	Smooth	Genre	Chemistry
Details of raw material					
Angle of repose	35°		Cohesiveness	Low	
					
Fig.1 Angle of repose 35° Bridge measures is unnecessary			Fig.2 Feature Smooth and low cohesiveness		

Comments
This materials are finely smooth and non-sticky, it was be able to discharged without using a bridge breaker (Fig.1, Fig.2). We weighed the amount of discharged pellet in multiples of 30second (Table 1). The varying quality of discharged amount was $\pm 1\%$.

Weighing method	Volumetric	Timer	Unused	Aim value	1000g/hour
No.	Time	Integrated weight(g)	Discharged weight(g)	Averages : 8.27 g/30sec Maximun value : 8.6 g/30sec Minimum value : 8.0 g/30sec An hour conversion : 992g/hour	
1	0	1.7			
2	30	10.2	8.5		
3	60	18.3	8.1		
4	90	26.5	8.2		
5	120	34.8	8.3		
6	150	42.9	8.1		
7	180	51.4	8.5		
8	210	59.5	8.1		
9	240	68.0	8.5		
10	270	76.3	8.3		
11	300	84.4	8.1	Test scene movie https://youtu.be/cSZ0m3W1ssU Company Profile movie https://www.youtube.com/watch?v=1FRYOZq009c	
12	330	92.9	8.5		
13	360	101.1	8.2		
14	390	109.6	8.5		
15	420	117.8	8.2		
16	450	126.0	8.2		
17	480	134.3	8.3		
18	510	142.5	8.2		
19	540	150.9	8.4		
20	570	159.1	8.2		
21	600	167.4	8.3		
22	630	175.6	8.2	Table 1 Discharged weight in multiples of 30 seconds	
23	660	183.8	8.2		
24	690	192.3	8.5		
25	720	200.4	8.1		




Machine's specification		Appearance
Type of machine	Screw feeder	
Feeder size	φ25.4	
Type of screw	Standard	
Hopper	1L	
Agitator	-	
Special notes		
Ratio of reduction gear:1/18		
<Method of control> Speed controller(keeping 11.1rpm)		

Fig.3 Test equipments

Appearance of trial	
	
Fig.6 Type of screw : Standard	Fig.4 Discharging scene