Test Report

Report No.: **27129**
Date: 12.08.2021
Contact: GB

Task:

Application field:	Coal / Power plant / Energy
Material:	**Charcoal**
Feed size:	up to 50 mm
Feed quantity:	2400 g (about 10 l)
Material specification(s):	moist (residual moisture 5%), medium hard, brittle
Customer requirements(s):	Sieve analysis 10 / 20 / 30 mm, ISO 3310/2
Subsequent analysis:	granulation test

Solution

Selected Instrument(s):	Horizontal Sieve Shaker AS 400 control Vibratory Sieve Shaker AS 450 basic
Configuration(s) Item nos.:	1 x AS 400 control, 100-240 V, 50/60 Hz, incl. test report acc. EN 10204 2.2 1 x Clamping device "comfort" for test sieves 400 mm ø 1 x Collecting pan, stainless steel, 400 mm Ø, height 65 mm 1 x Test Sieve, ISO 3310/2, 400x65mm, 10.0mm, stainless steel, perforated plate, round hole 1 x Test Sieve, ISO 3310/2, 400x65mm, 20.0mm, stainless steel, perforated plate, round hole 1 x Test Sieve, ISO 3310/2, 400x65mm, 31.5mm, stainless steel, perforated plate, round hole 2 x Intermediate ring stainless steel, ø 400x65 mm 1 x Evaluation software EasySieve, version 5 / USB stick, incl. adapter USB-RS232 Comparison with vibratory sieving: 1 x AS 450 basic, 230 V, 50 Hz incl. clamping device "standard" 1 x Clamping device "standard", for AS 450 basic Please note: Other electrical versions of the instrument(s) are available with different item numbers.
Parameter(s):	Revolution speed 220 rpm
Time:	10 and 20 min

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Achieved result(s):	See measuring protocol EasySieve A comparison with vibratory sieving using the AS 450 basic creates identical results.
Remark(s):	A complete bag (2.4 kg, 10 l) of charcoal is used for test sieving. To allow a proper sample movement intermediate rings are used on sieves with aperture size > 15 mm.
Recommendation:	The Horizontal Sieve Shaker AS 400 control is suitable to analyse the sample material under the above mentioned conditions.

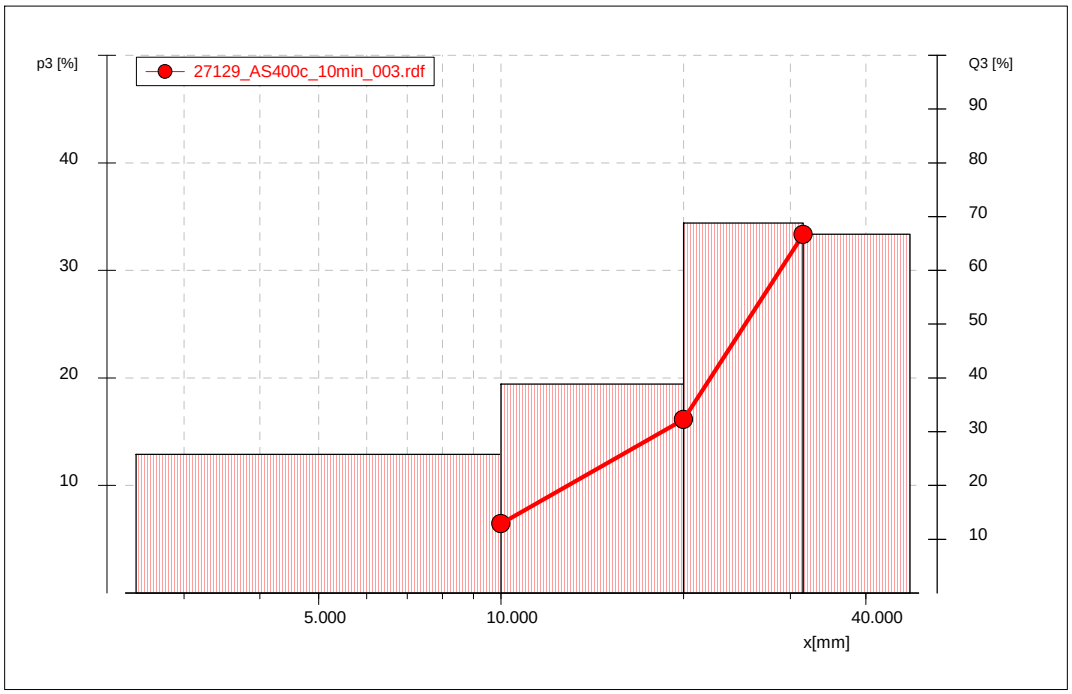
EasySieve®

Retsch®
MILLING SIEVING ASSISTING

Retsch Sieve Analysis

Company:	[redacted]		
User:	GBE		
Result file:	C:\EasySieve\SIEVEDAT\27067_Charcoal\27129_AS400c_10min_003.rdf		
Task file:	27067_Charcoal.afg	GKL file:	27067_Charcoal.gkl
Date:	12.08.2021 12:51	Sieving duration [mm:ss]:	10:00
Sieve shaker:	AS 400 control	No. of revolutions [1/min]:	220.0
Manual input:	Yes		
Material:	Charcoal		
Sample quantity [g]:	2397.40	Backweighing [g]:	2397.40
Sieve loss [%]:	-0.00		
Sampling:	1 package 2.5 kg	Sample preparation:	No sample preparation
Sieving method:	horizontal AS 400	Test sieve size:	400 x 65 mm
Test sieves according to standard:	DIN ISO 3310-2	Sieving aids:	No sieving aids
Comment:	Intermediate rings on sieves > 15 mm		

Size class		[mm]	p3 [%]	Q3 [%]	Δm [g]	ΣΔm [g]
	<	10.000	12.9	12.9	308.40	308.40
10.000	-	20.000	19.4	32.3	465.50	773.90
20.000	-	31.500	34.4	66.7	824.20	1598.10
> 31.500			33.3	100.0	799.30	2397.40



Characteristics:

Q3 [%]	x [mm]
10.0	7.774
50.0	25.927
90.0	42.526

x [mm]	Q3[%]
0.400	0.5

Span:	1.340
U:	3.766
Sv [mm²/mm³]:	0.36
Sm [cm²/g]:	3.6
XSt [mm]:	16.531
AFS-Nr.:	---
CV:	54.145
MA [mm]:	25.927
d'[mm]:	31.342
n:	1.8
Correlation:	0.99

User:

Graph:
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