

# ESPECIFICAÇÕES PELLETS DE MADEIRA

## SPECIFICATION OF WOOD PELLETS

PROPRIEDADE E UNIDADES PROPERTIES AND UNITS	RESULTADO TÍPICO USUAL RESULT	MÉTODO DE ANÁLISE METHOD OF ANALYSIS
DIMENSÕES (mm) DIMENSIONS (mm)		
DIÂMETRO (D) E COMPRIMENTO (L) DIAMETER (D) AND LENGTH (L)	$D \leq 6 \pm 0,5mm$ ; $L \leq 40mm$ $D \leq 8 \pm 0,5mm$ ; $L \leq 40mm$	SS 187120
HUMIDADE ANALÍTICA (%) MOISTURE (w - % as analysed)	$\leq 8,00 \%$ 9,6 - 0,7	LVS EN 14774-3
CINZAS (% mássica) ASH (w - %)	$< 0,8 \%$	LVS EN 14775
P.C.I. (MJ/kg como recebido) NET CALORIFIC VALUE (MJ/kg as received)	$\geq 17,5$ 17,7 a 18 ↓ 17,85	LVS CEN/TS 15296
DENSIDADE (kg/m³) BULK DENSITY (kg/m³ as received)	$\geq 600$ ↓ 620	LVS EN 15103
GRANULOMETRIA $\geq 2mm$ PARTICLE SIZE DISTRIBUTION $\geq 2mm$	$< 5,0 \%$	LVS EN 15149
DURABILIDADE MECÂNICA (%) MECHANICAL DURABILITY (w- % of pellets after testing)	$\geq 97,00 \%$	LVS EN 15210-1
ENXOFRE (% base seca) SULPHUR (w- % of dry basis)	$\leq 0,02 \%$	SS 187177

2704,2

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**BELAB AB**

# ANALYSCERTIFIKAT

## Certificate of analysis

Sample# 123613  
 Rapportdatum: 2013-01-07  
 Arrival date 2012-12-27

SampleID Enerpellets (energiförsörjningen) Cust# 1436  
 Sample type Wood pellets  
 ID.nmbr  
 Marked Supplier: Enerpellets SA.  
 M/V Emswater, B/L 2012-12-21,  
 4240,916 MT.  
 Sealnr: 455055

Approved by  
 Albin Klint

Customer reference  
 Karl-Axel Wenzlaff

Order nmbr

Analysis	Unit	Note	Laboratory	Norm
Moisture, 105°C	6.2	%	Belab	SS-EN 14774:2009/15414:2011
Ash, 550°C	0.8	% ts	Belab	SS-EN 14775:2009/15403:2011
Ash, 550°C ar	0.7	%	Belab	SS-EN 14775:2009/15403:2011
Carbon(C) ar	47.8	%	Belab	SS-EN 15104:2011/15407:2011
Carbon (C) db	51.0	% ts	Belab	SS-EN 15104:2011/15407:2011
Hydrogen (H) ar	6.5	% *	Belab	SS-EN 15104:2011/15407:2011
Hydrogen (H) db	6.2	% ts	Belab	SS-EN 15104:2011/15407:2011
Nitrogen (N) ar	0.11	%	Belab	SS-EN 15104:2011/15407:2011
Nitrogen (N) db	0.11	% ts	Belab	SS-EN 15104:2011/15407:2011
Oxygen (O) ar	44.9	% *	Belab	Calculated
Oxygen (O) db	42.0	% ts	Belab	Calculated
Sulphur (S) ar	0.014	%	Belab	SS-EN 15289:2011/15408:2011
Sulphur (S) db	0.015	% ts	Belab	SS-EN 15289:2011/15408:2011
Gross cal. value Const volume ar	19.237	MJ/kg	Belab	SS-EN 14918:2010/15400:2011
Net cal. value Const press ar	17.828	MJ/kg	Belab	SS-EN 14918:2010/15400:2011
Net cal. value Const press db	19.168	MJ/kg	Belab	SS-EN 14918:2010/15400:2011
Net cal. value Const press db ashfree	19.313	MJ/kg	Belab	SS-EN 14918:2010/15400:2011
Gross cal. value Const volume ar	4594	Kcal/kg	Belab	SS-EN 14918:2010/15400:2011
Net cal. value Const press ar	4257	Kcal/kg	Belab	SS-EN 14918:2010/15400:2011
Net cal. value Const press db	4577	Kcal/kg	Belab	SS-EN 14918:2010/15400:2011
Net cal. value Const press db ashfree	4612	Kcal/kg	Belab	SS-EN 14918:2010/15400:2011
Gross cal. value Const volume ar	5.342	MWh/ton	Belab	SS-EN 14918:2010/15400:2011
Net cal. value Const press ar	4.951	MWh/ton	Belab	SS-EN 14918:2010/15400:2011
Net cal. value Const press db	5.323	MWh/ton	Belab	SS-EN 14918:2010/15400:2011
Net cal. value Const press db ashfree	5.363	MWh/ton	Belab	SS-EN 14918:2010/15400:2011
AF - Shrinking Temp, ST	1050	°C	Belab	prEN 15370:2007/15404:2010
AF - Deformation Temp, DT	1250	°C	Belab	prEN 15370:2007/15404:2010
AF - Hemisphere Temp, HT	1270	°C	Belab	prEN 15370:2007/15404:2010
AF - Flow Temp, FT	1280	°C	Belab	prEN 15370:2007/15404:2010
Bulkdensity	687#	kg/m <sup>3</sup>	Belab	SS-EN 15103:2010
Mechanical Durability, Pellets	96.4	%	Belab	SS-EN 15210:2010/15639:2007
Particle size (fines), pellets <3.15mm	0.8	%	Belab	SS-EN 15149:2010/15415:2011

Mätosäkerhet, se BILAGA TILL ANALYSRAPPORT.

ar = as received, db = dry basis, \* = water included, # = not accredited

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Analysis		Unit	Note	Laboratory	Norm
Sievingsample Weigth	49	g		Belab	
Sieve: 3,15 mm	1.1	%		Belab	SS-EN 15149:2010/15415:2011
Sieve: 2,5 mm	0.3	%		Belab	SS-EN 15149:2010/15415:2011
Sieve: 2,0 mm	3.4	%		Belab	SS-EN 15149:2010/15415:2011
Sieve: 1,6 mm	7.5	%		Belab	SS-EN 15149:2010/15415:2011
Sieve: 1,0 mm	26.2	%		Belab	SS-EN 15149:2010/15415:2011
Sieve: 0,85 mm	9.6	%		Belab	SS-EN 15149:2010/15415:2011
Sieve: 0,71 mm	9.0	%		Belab	SS-EN 15149:2010/15415:2011
Sieve: 0,50 mm	11.3	%		Belab	SS-EN 15149:2010/15415:2011
Sieve: <0,50 mm	31.6	%		Belab	SS-EN 15149:2010/15415:2011
Sieve: 3,15 mm	1.1	%		Belab	SS-EN 15149:2010/15415:2011
Sieve: 2,8 mm	<0.1	%		Belab	SS-EN 15149:2010/15415:2011
Sieve: 2,0 mm	3.7	%		Belab	SS-EN 15149:2010/15415:2011
Sieve: 1,4 mm	14.4	%		Belab	SS-EN 15149:2010/15415:2011
Sieve: 1,0 mm	19.3	%		Belab	SS-EN 15149:2010/15415:2011
Sieve: 0,5 mm	29.9	%		Belab	SS-EN 15149:2010/15415:2011
Sieve: 0,25 mm	16.1	%		Belab	SS-EN 15149:2010/15415:2011
Sieve: <0,25 mm	15.5	%		Belab	SS-EN 15149:2010/15415:2011

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