FES#1 Lekka zadyma

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **35**
- SRM **31.5**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.9 liter(s)**
- Total mash volume **29.2 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **21.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg *(41.1%)*	80 %	5
Grain	Viking Vienna Malt	0.5 kg *(6.8%)*	79 %	7
Grain	Monachijski typ II 20-254 EBC Viking Malt	1 kg *(13.7%)*	80 %	20
Grain	Viking Malt Wędzony Torfem	1 kg *(13.7%)*	81 %	10
Grain	Viking Malt Słód Owsiany	0.3 kg *(4.1%)*	61 %	5
Grain	Viking Malt Słód Barwiący	0.25 kg *(3.4%)*	65 %	1300
Grain	Viking Czekoladowy ciemny	0.25 kg *(3.4%)*	68 %	1200
Grain	Płatki jęczmienne błyskawiczne	0.5 kg *(6.8%)*	60 %	3
Grain	Viking Wheat Malt	0.5 kg *(6.8%)*	83 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	30 g	60 min	12.4 %

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Aroma (end of boil)	Fuggles	30 g	10 min	4.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	1300 ml	FM