FES

- Gravity 16.4 BLG
- ABV 6.9 %
- IBU 35
- SRM **25.1**
- Style Foreign Extra Stout

Batch size

- Expected quantity of finished beer 20 liter(s)
- Trub loss 5 %
- Size with trub loss 21 liter(s)
- · Boil time 65 min
- Evaporation rate 10 %/h
- Boil size 24.4 liter(s)

Mash information

- Mash efficiency 80 %
- Liquor-to-grist ratio 3.5 liter(s) / kg
- Mash size 21 liter(s)
- Total mash volume 27 liter(s)

Steps

- Temp **64 C**, Time **45 min** Temp **72 C**, Time **30 min**
- Temp 76 C, Time 1 min

Mash step by step

- Heat up 21 liter(s) of strike water to 70.3C
- Add grains
- Keep mash 45 min at 64C
- Keep mash 30 min at 72C
- Keep mash 1 min at 76C
- Sparge using 9.4 liter(s) of 76C water or to achieve 24.4 liter(s) of wort

Fermentables

Туре	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg <i>(83.3%)</i>	80 %	4
Grain	Płatki jęczmienne	0.4 kg <i>(6.7%)</i>	70 %	4
Grain	Caraaroma	0.3 kg <i>(5%)</i>	74 %	400
Grain	Jęczmień palony	0.2 kg <i>(3.3%)</i>	70 %	1000
Grain	Weyermann - Carafa I	0.1 kg <i>(1.7%)</i>	70 %	800

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Aurora	35 g	55 min	8.5 %
Boil	Styrian Golding	45 g	10 min	3.6 %

Yeasts

Name	Туре	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	30 ml	Fermentum Mobile

Notes

• http://blog.homebrewing.pl/foreign-extra-stout-receptura/

