Świąteczny czarny płyn 1

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **24**
- SRM **42**
- Style **Oatmeal Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **25.6 liter(s)**
- Total mash volume **32.9 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **25.6 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **30 min** at **72C**
- Sparge using **7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pszeniczny	2 kg *(27.3%)*	81 %	6
Grain	Viking Pale Ale malt	2 kg *(27.3%)*	80 %	5
Grain	Jęczmień palony	0.07 kg *(1%)*	55 %	985
Grain	Monachijski	1 kg *(13.7%)*	80 %	16
Grain	Strzegom Wiedeński	1 kg *(13.7%)*	79 %	10
Grain	Strzegom pszenica prażona	0.25 kg *(3.4%)*	70 %	1000
Grain	Fawcett - Pszeniczny Czekoladowy	0.25 kg *(3.4%)*	73 %	1001
Grain	czekoladowy żytni	0.25 kg *(3.4%)*	75 %	1000
Grain	karmelowy ciemny	0.5 kg *(6.8%)*	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	60 min	13.5 %
Boil	puławski	15 g	10 min	8.9 %

Yeasts

Name	Type	Form	Amount	Laboratory

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

US-05	Ale	Dry	11.5 g	---

Extras

Type	Name	Amount	Use for	Time
Spice	kardamon	3 g	Boil	5 min
Spice	anyż	5 g	Boil	5 min
Spice	laska cynamonu	2 g	Secondary	7 day(s)
Spice	laska wanilii	2 g	Secondary	7 day(s)
Spice	goździki	5 g	Boil	5 min
Spice	curacao	17 g	Boil	5 min
Spice	gałka muszkatałowa	3 g	Boil	5 min