Stout

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **35**
- SRM **32.9**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.5 liter(s)**
- Total mash volume **28.6 liter(s)**

Steps

- Temp **67 C**, Time **80 min**
- Temp **70 C**, Time **10 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **21.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **80 min** at **67C**
- Keep mash **10 min** at **70C**
- Keep mash **10 min** at **77C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg *(42%)*	80 %	5
Grain	Strzegom Pilzneński	1 kg *(14%)*	80 %	4
Grain	Strzegom Monachijski typ II	0.7 kg *(9.8%)*	79 %	22
Grain	Cookie	0.5 kg *(7%)*	80 %	50
Grain	Strzegom Barwiący	0.5 kg *(7%)*	68 %	1300
Grain	Pszeniczny	1 kg *(14%)*	85 %	4
Grain	Płatki pszeniczne	0.45 kg *(6.3%)*	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau magnum	30 g	60 min	11.8 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	50 g	0 min	15.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
US 04	Ale	Dry	11.5 g	---

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

Extras

Type	Name	Amount	Use for	Time
Fining	Żelatyna	4 g	Secondary	2 day(s)