

Uj

- Gravity **23.1 BLG**
- ABV **10.5 %**
- IBU **33**
- SRM **48.2**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **21.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.6 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **19.2 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **15 min** at **78C**
- Sparge using **8.7 liter(s)** of **76C** water or to achieve **21.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (37.5%)	80 %	5
Grain	Pszeniczny	1 kg (12.5%)	85 %	4
Grain	Strzegom Monachijski typ II	1 kg (12.5%)	79 %	22
Grain	Strzegom Czekoladowy jasny	0.2 kg (2.5%)	68 %	400
Grain	Strzegom Czekoladowy ciemny	0.2 kg (2.5%)	68 %	1200
Grain	Strzegom Karmel 300	0.7 kg (8.8%)	70 %	299
Sugar	Candi Sugar, Dark	0.3 kg (3.8%)	78.3 %	542
Dry Extract	WES ekstrakt srodowy jasny	0.3 kg (3.8%)	80 %	---
Sugar	Milk Sugar (Lactose)	1 kg (12.5%)	76.1 %	0
Grain	Jęczmień palony	0.3 kg (3.8%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Motueka	20 g	30 min	7 %
Aroma (end of boil)	Vic Secret	50 g	10 min	16.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	0.5 ml	Safale

Extras

Type	Name	Amount	Use for	Time
Flavor	Platki	25 g	Boil	2000 min
Fining	Whirlfloc	2 g	Mash	10 min
Water Agent	Gips piwowarski	6 g	Mash	60 min