

bp

- Gravity **12.6 BLG**
- ABV ---
- IBU **29**
- SRM **33.3**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.9 liter(s)**
- Total mash volume **23.8 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **17.9 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **20.3 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (67.2%)	79 %	6
Grain	monachijski	1 kg (16.8%)	--- %	---
Grain	Strzegom Czekoladowy 400	0.2 kg (3.4%)	68 %	400
Grain	Carahell Wayermann	0.2 kg (3.4%)	--- %	---
Grain	Jęczmień palony	0.35 kg (5.9%)	55 %	985
Grain	Karmelowy żytni Strzegom	0.2 kg (3.4%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	30 min	10 %
Boil	Marynka	20 g	10 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale