

Wcielista

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **33**
- SRM **22.2**

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 **60 %**
- Liquor-to-grist ratio **3.8 liter(s) / kg**
- Mash size **19 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **19 liter(s)** of strike water to **74.3C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	4.4 kg (88%)	85 %	7
Grain	Strzegom Karmel 300	0.4 kg (8%)	70 %	299
Grain	Strzegom Czekoladowy ciemny	0.1 kg (2%)	68 %	1200
Grain	Jęczmień palony	0.1 kg (2%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	30 g	60 min	7 %
Boil	Fuggles	15 g	20 min	4.5 %
Aroma (end of boil)	Fuggles	15 g	10 min	4.5 %

Yeasts

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