

jasne

- Gravity **19.8 BLG**
- ABV **8.7 %**
- IBU **21**
- SRM **7.3**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **30 min**
- Evaporation rate **10 %/h**
- Boil size **24.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24.4 liter(s)**
- Total mash volume **32.5 liter(s)**

Steps

- Temp **47 C**, Time **3 min**
- Temp **71 C**, Time **25 min**
- Temp **68 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **24.4 liter(s)** of strike water to **51.5C**
- Add grains
- Keep mash **3 min** at **47C**
- Keep mash **20 min** at **68C**
- Keep mash **25 min** at **71C**
- Keep mash **5 min** at **78C**
- Sparge using **7.8 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (61.6%)	79 %	6
Grain	Briess - Pilsen Malt	1 kg (12.3%)	80.5 %	2
Grain	Weyermann - Light Munich Malt	2 kg (24.6%)	82 %	15
Grain	Płatki owsiane	0.12 kg (1.5%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	southern promise	20 g	40 min	11.1 %
Boil	southern promise	8 g	20 min	11.1 %
Boil	southern promise	22 g	1 min	11.1 %