

z ostatkiow

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **24**
- SRM **4.5**
- Style **Specialty Beer**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **19.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.8 kg (80%)	81 %	4
Grain	Strzegom Wiedeński	0.2 kg (3.3%)	79 %	8
Grain	Monachijski	1 kg (16.7%)	80 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	60 g	60 min	3.4 %
Boil	Saaz (Czech Republic)	30 g	5 min	4.4 %
Boil	Lublin (Lubelski)	20 g	15 min	3.4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	10 g	---