

Resztki

- Gravity **12.1 BLG**
- ABV ---
- IBU **53**
- SRM **6.6**

Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **42 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **50.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **31.5 liter(s)**
- Total mash volume **40.5 liter(s)**

Steps

- Temp **61 C**, Time **10 min**
- Temp **71 C**, Time **40 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **31.5 liter(s)** of strike water to **66.9C**
- Add grains
- Keep mash **10 min** at **61C**
- Keep mash **40 min** at **71C**
- Keep mash **10 min** at **75C**
- Sparge using **28.1 liter(s)** of **76C** water or to achieve **50.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (33.3%)	80 %	4
Grain	Strzegom Wiedeński	6 kg (66.7%)	79 %	10

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	magnum	7.2 g	90 min	10 %
Boil	marynka	20 g	90 min	9.4 %
Boil	norther brewer	41 g	90 min	7.5 %
Boil	lubelski	62 g	45 min	4.3 %
Aroma (end of boil)	lubelski	26 g	5 min	4.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Slant	100 ml	---