

ALE

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **33**
- SRM **5.6**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **10.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **13.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **13.5 liter(s)**

Steps

- Temp **63 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **10.5 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **15 min** at **63C**
- Keep mash **45 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **6.4 liter(s)** of **76C** water or to achieve **13.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1.6 kg (53.3%)	90 %	5
Grain	Strzegom Monachijski typ II	0.4 kg (13.3%)	79 %	22
Grain	Strzegom Wiedeński	0.4 kg (13.3%)	79 %	10
Grain	Płatki owsiane	0.3 kg (10%)	60 %	3
Grain	Jęczmień niesłodowany	0.3 kg (10%)	75 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	12 g	60 min	5.1 %
Boil	Fuggles	12 g	60 min	4.5 %
Aroma (end of boil)	East Kent Goldings	30 g	5 min	5.1 %
Aroma (end of boil)	Fuggles	30 g	5 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Wyeast - 1056 American Ale	Ale	Slant	120 ml	Wyeast Labs
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