English ale porter

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **31**
- SRM **32**
- Style **English IPA**

Batch size

- Expected quantity of finished beer **72 liter(s)**
- Trub loss **2 %**
- Size with trub loss **74.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **86.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **60 liter(s)**
- Total mash volume **80 liter(s)**

Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

Mash step by step

- Heat up **60 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **10 min** at **72C**
- Sparge using **46.1 liter(s)** of **76C** water or to achieve **86.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód jęczmienne pilzneński czeski 3,5 EBC Bruntal	15 kg *(75%)*	80 %	4
Grain	Caraaroma	1 kg *(5%)*	78 %	400
Grain	Weyermann - Carafa I	2 kg *(10%)*	70 %	800
Grain	Jęczmień niesłodowany	2 kg *(10%)*	75 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Enigma (AUS)	270 g	1 min	17.2 %
Boil	Lublin (Lubelski)	60 g	80 min	4 %
Boil	Marynka	60 g	60 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	46 g	Safale