

## #3 Ale ale

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- Gravity **12.2 BLG**
- ABV ---
- IBU **47**
- SRM ---

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **23.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

### Steps

- Temp **60 C**, Time **10 min**
- Temp **71 C**, Time **45 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **12 liter(s)** of strike water to **66.7C**
- Add grains
- Keep mash **10 min** at **60C**
- Keep mash **45 min** at **71C**
- Keep mash **10 min** at **75C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **23.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (100%)	--- %	---

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	11 %
Boil	Lublin (Lubelski)	35 g	30 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	15 g	10 min	4 %
Dry Hop	Lublin (Lubelski)	50 g	4 day(s)	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Windsor Ale	Ale	Dry	10 g	---