

## ALE 1.0

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **28**
- SRM **5.7**
- Style **Blonde Ale**

### Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **3 %**
- Size with trub loss **51.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **58.9 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **32.1 liter(s)**
- Total mash volume **42.8 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **32.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **37.5 liter(s)** of **76C** water or to achieve **58.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	7 kg (65.4%)	80 %	5
Grain	Wiedeński	2 kg (18.7%)	79 %	10
Grain	Karmelowy Jasny 30EBC	1.7 kg (15.9%)	75 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo USA	50 g	60 min	8.8 %
Boil	Lublin (Lubelski)	50 g	15 min	4 %
Aroma (end of boil)	Cascade USA	50 g	5 min	7.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Slant	400 ml	Bunkier