

## Golden ALE #2

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- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **34**
- SRM **8**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **0 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **30 min**
- Evaporation rate **10 %/h**
- Boil size **18.2 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.7 liter(s)**
- Total mash volume **11.6 liter(s)**

### Steps

- Temp **66 C**, Time **75 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **8.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **75 min** at **66C**
- Keep mash **10 min** at **75C**
- Sparge using **12.4 liter(s)** of **76C** water or to achieve **18.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale Malt	1.9 kg (65.5%)	80 %	15
Grain	Viking Vienna Malt	0.6 kg (20.7%)	79.5 %	21
Grain	Viking Caramel 30	0.2 kg (6.9%)	75 %	79
Grain	Viking Wheat Malt	0.2 kg (6.9%)	84 %	15

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Equinox (HBC 366)	12 g	30 min	14.1 %
Boil	Citra	10 g	15 min	12 %
Boil	Citra	10 g	5 min	12 %
Boil	Amarillo	30 g	0 min	9.2 %
Whirlpool	Citra	10 g	0 min	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Danstar BRY-97	Ale	Dry	11 g	danstar

### Extras

Type	Name	Amount	Use for	Time
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Water Agent	Siarczan Magnezu (MgSO4)	5.29 g	Mash	60 min
Water Agent	Phosphoric Acid 85%	3 g	Mash	60 min
Water Agent	Chlorek Wapnia	2.75 g	Mash	60 min
Water Agent	Gips (Calcium Sulfate)	1.57 g	Mash	60 min
Water Agent	Sól	1.4 g	Mash	60 min