

# Golden ale

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- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **19**
- SRM **4.7**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **23 %/h**
- Boil size **14.8 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **8.8 liter(s)**
- Total mash volume **11 liter(s)**

## Steps

- Temp **67 C**, Time **45 min**
- Temp **73 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **8.8 liter(s)** of strike water to **72.9C**
- Add grains
- Keep mash **45 min** at **67C**
- Keep mash **20 min** at **73C**
- Keep mash **5 min** at **78C**
- Sparge using **8.2 liter(s)** of **76C** water or to achieve **14.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Oats, Flaked	0.22 kg (10%)	80 %	2
Grain	Biscuit Malt	0.22 kg (10%)	79 %	45
Grain	Pszeniczny	0.44 kg (20%)	85 %	4
Grain	Pilzneński	1.32 kg (60%)	81 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tomyski	20 g	60 min	3.5 %
Whirlpool	Styrian Wolf	30 g	1 min	11.1 %
Whirlpool	Citra	20 g	1 min	12 %