

## pale ale wedding

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **24**
- SRM **3.6**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **27.9 liter(s)**

### Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **2.6 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **19.4 liter(s)**

### Steps

- Temp **62 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **14 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **1 min** at **78C**
- Sparge using **19.3 liter(s)** of **76C** water or to achieve **27.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (74.1%)	81 %	4
Grain	Pszeniczny	1 kg (18.5%)	85 %	4
Grain	Płatki owsiane	0.4 kg (7.4%)	60 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	6 g	60 min	16.5 %
Aroma (end of boil)	Mosaic	50 g	1 min	12 %
Whirlpool	Nectaron	50 g	10 min	12 %