

## A Pale Ale #kveik

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **36**
- SRM **4.1**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **19.8 liter(s)**

### Steps

- Temp **66 C**, Time **50 min**
- Temp **74 C**, Time **15 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **15.4 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **15 min** at **74C**
- Keep mash **5 min** at **77C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.2 kg (72.7%)	85 %	7
Grain	Słód Pilsner® 2,5-4,5 EBC Weyermann	1 kg (22.7%)	80 %	4
Grain	Weyermann - Carapils	0.2 kg (4.5%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	18 g	50 min	13.5 %
Boil	Cascade	20 g	10 min	6 %
Aroma (end of boil)	Mosaic	25 g	5 min	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM53 Voss kveik	Ale	Liquid	210 ml	FM

### Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	4.2 g	Mash	10 min