

# Uniwersal Pale Ale

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **42**
- SRM **4.5**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **0 min** at **78C**
- Sparge using **20.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	5 kg (100%)	85 %	7

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Junga	10 g	60 min	9.7 %
Boil	Citra	10 g	20 min	11.9 %
Aroma (end of boil)	Citra	15 g	5 min	11.9 %
Aroma (end of boil)	citra	20 g	0 min	11.9 %
Whirlpool	Citra	35 g	120 min	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis