

# Cwel jasny pełny

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **46**
- SRM **3.9**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.1 liter(s) / kg**
- Mash size **15.5 liter(s)**
- Total mash volume **20.5 liter(s)**

## Steps

- Temp **66 C**, Time **30 min**
- Temp **69 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **15.5 liter(s)** of strike water to **73.4C**
- Add grains
- Keep mash **30 min** at **66C**
- Keep mash **30 min** at **69C**
- Keep mash **1 min** at **78C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (100%)	80 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	40 g	50 min	8.8 %
Aroma (end of boil)	Hallertau Blanc	25 g	10 min	5.3 %
Aroma (end of boil)	Kohatu	26 g	10 min	6.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis