

# wino jęczmienne

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- Gravity **28.7 BLG**
- ABV **14 %**
- IBU **41**
- SRM **13**
- Style **English Barleywine**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **16.6 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **24.5 liter(s)**

## Steps

- Temp **64 C**, Time **70 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **17.5 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **70 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **6.1 liter(s)** of **76C** water or to achieve **16.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) UK	5.6 kg (80%)	78 %	6
Grain	Caramel/Crystal Malt - 10L	0.5 kg (7.1%)	75 %	20
Grain	Cara Gold	0.4 kg (5.7%)	75 %	120
Grain	Pilzneński	0.5 kg (7.1%)	81 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	30 g	60 min	7 %
Boil	Magnum	15 g	60 min	13.5 %
Boil	Fuggles	20 g	5 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
WLP099 - Super High Gravity Ale Yeast	Ale	Slant	200 ml	White Labs