

# przenicznik z książki na garze

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **11**
- SRM **3.8**

## Batch size

- Expected quantity of finished beer **28.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.4 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **39.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **46 C**, Time **10 min**
- Temp **51 C**, Time **15 min**
- Temp **54 C**, Time **10 min**
- Temp **63 C**, Time **20 min**
- Temp **68 C**, Time **30 min**
- Temp **15 C**, Time **76 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **14.2C**
- Add grains
- Keep mash **76 min** at **15C**
- Keep mash **10 min** at **46C**
- Keep mash **15 min** at **51C**
- Keep mash **10 min** at **54C**
- Keep mash **20 min** at **63C**
- Keep mash **30 min** at **68C**
- Sparge using **25.3 liter(s)** of **76C** water or to achieve **39.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	3.5 kg (50%)	82 %	4
Grain	Viking Wheat Malt	3.5 kg (50%)	83 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau	29 g	60 min	5.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Slant	200 ml	Fermentum Mobile