

# piwsko do żłopania

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **49**
- SRM **5.7**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.1 liter(s)**
- Total mash volume **20.7 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **16.1 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **1 min** at **76C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Pilsen	4.2 kg (91.3%)	80.5 %	4
Grain	red ale viking malt	0.4 kg (8.7%)	75 %	70

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zula	30 g	60 min	9.5 %
Aroma (end of boil)	Zula	60 g	5 min	9.5 %
Aroma (end of boil)	Hallertau Spalt Select	10 g	5 min	3.4 %
Aroma (end of boil)	Styrian Wolf	15 g	5 min	9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Lutra	Ale	Dry	11 g	---