

# Zdzawy bóbr

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **51**
- SRM **4.2**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **27.2 liter(s)**

## Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.6 liter(s)**

## Steps

- Temp **53 C**, Time **10 min**
- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **30 min**
- Temp **78 C**, Time **30 min**

## Mash step by step

- Heat up **19.2 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **10 min** at **53C**
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **73C**
- Keep mash **30 min** at **78C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **27.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pilsen Malt	5.5 kg (85.9%)	80.5 %	2
Grain	Pszeniczny	0.3 kg (4.7%)	85 %	4
Grain	Carared	0.3 kg (4.7%)	75 %	39
Grain	Karamel Pils Steinbach	0.3 kg (4.7%)	79 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sladek	35 g	70 min	6 %
Boil	Mandarina Bavaria	35 g	30 min	10 %
Whirlpool	Zatecki czerwieniak	24 g	---	5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	12 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Spice	ginger	400 g	Secondary	3 day(s)