

# witless

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- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **14**
- SRM **4.1**
- Style **Witbier**

## 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 **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.1 liter(s)**
- Total mash volume **17.5 liter(s)**

## Steps

- Temp **68.9 C**, Time **45 min**

## Mash step by step

- Heat up **13.1 liter(s)** of strike water to **77.1C**
- Add grains
- Keep mash **45 min** at **68.9C**
- Sparge using **16.6 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) Bel	2.5 kg (57.2%)	80 %	6
Grain	Słód pszeniczny Bestmalz	1.8 kg (41.2%)	82 %	5
Grain	Caramel/Crystal Malt - 15L	0.03 kg (0.7%)	75 %	20
Grain	Monachijski	0.03 kg (0.7%)	80 %	16
Grain	Caramel/Crystal Malt - 40L	0.01 kg (0.2%)	74 %	79

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade PL	20 g	45 min	5.2 %
Boil	Cascade PL	10 g	15 min	5.2 %