

# Brzozowy lager 2020

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **36**
- SRM **4.7**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **3 %**
- Size with trub loss **25.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **6 %/h**
- Boil size **28.6 liter(s)**

## Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **21.4 liter(s)**

## Steps

- Temp **52 C**, Time **15 min**
- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **45 min**

## Mash step by step

- Heat up **15.3 liter(s)** of strike water to **58.4C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **45 min** at **63C**
- Keep mash **45 min** at **72C**
- Sparge using **19.4 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	5 kg (82%)	82 %	4
Grain	Strzegom Monachijski typ I	1 kg (16.4%)	79 %	16
Grain	Acid Malt	0.1 kg (1.6%)	58.7 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	11.5 %
Aroma (end of boil)	Hersbrucker	40 g	10 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Lalbrew Diamond Lager Yeast	Lager	Slant	500 ml	#89