

# Jacek Wróbel

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- Gravity **21.3 BLG**
- ABV **9.5 %**
- IBU **36**
- SRM **27.6**
- Style **Baltic Porter**

## Batch size

- Expected quantity of finished beer **9 liter(s)**
- Trub loss **5 %**
- Size with trub loss **9.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **11.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11 liter(s)**
- Total mash volume **14.7 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **11 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **77C**
- Sparge using **4 liter(s)** of **76C** water or to achieve **11.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.1 kg (57.2%)	81 %	4
Grain	Caraaroma	0.52 kg (14.2%)	78 %	400
Grain	Strzegom Monachijski typ I	0.5 kg (13.6%)	79 %	16
Grain	Płatki owsiane	0.3 kg (8.2%)	85 %	3
Grain	Weyermann - Carapils	0.25 kg (6.8%)	78 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	60 min	14 %

## Yeasts

Name	Type	Form	Amount	Laboratory
WLP885 - Zurich Lager Yeast	Lager	Liquid	100 ml	White Labs