

# Porter Urodzinowy

- Gravity **21.1 BLG**
- ABV **9.4 %**
- IBU **45**
- SRM **29.1**
- Style **Baltic Porter**

## 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 **2 liter(s) / kg**
- Mash size **17.6 liter(s)**
- Total mash volume **26.4 liter(s)**

## Steps

- Temp **68 C**, Time **100 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **17.6 liter(s)** of strike water to **80C**
- Add grains
- Keep mash **100 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (56.8%)	81 %	3
Grain	Strzegom Monachijski typ II	2 kg (22.7%)	79 %	22
Grain	Brown	1 kg (11.4%)	72 %	185
Grain	Weyermann Caramunich 3	0.5 kg (5.7%)	73 %	150
Grain	Strzegom Czekoladowy ciemny	0.15 kg (1.7%)	68 %	1200
Grain	Special B Malt	0.15 kg (1.7%)	65.2 %	315

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	13.5 %
Boil	Magnum	20 g	20 min	13.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	11.5 g	Fermentis