

# Piotra 1

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- Gravity **13 BLG**
- ABV ---
- IBU **29**
- SRM **6.3**

## Batch size

- Expected quantity of finished beer **60 liter(s)**
- Trub loss **10 %**
- Size with trub loss **66 liter(s)**
- Boil time **70 min**
- Evaporation rate **5 %/h**
- Boil size **69.8 liter(s)**

## Mash information

- Mash efficiency **55 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **60 liter(s)**
- Total mash volume **80 liter(s)**

## Steps

- Temp **62 C**, Time **90 min**
- Temp **72 C**, Time **90 min**
- Temp **99 C**, Time **60 min**

## Mash step by step

- Heat up **60 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **90 min** at **62C**
- Keep mash **90 min** at **72C**
- Keep mash **60 min** at **99C**
- Sparge using **29.8 liter(s)** of **76C** water or to achieve **69.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	10 kg (50%)	81 %	4
Grain	Castle Abbey Malt	5 kg (25%)	80 %	6
Grain	Żytni	0.5 kg (2.5%)	85 %	8
Grain	Weyermann pszeniczny jasny	2 kg (10%)	85 %	4
Grain	Strzegom Wiedeński	2.5 kg (12.5%)	79 %	10

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	50 min	10 %
Boil	Cascade	30 g	50 min	6 %
Boil	Simcoe	7 g	30 min	13 %
Boil	Hallertau	7 g	20 min	4.5 %
Boil	Fuggles	10 g	15 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M79 Burton Union	Ale	Dry	33 g	Mangrove Jack's