

# Gniew Podlasia

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **18**
- SRM **15.9**
- Style **Irish Red Ale**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **24.3 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **0 min**

## Mash step by step

- Heat up **18.2 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **60 min** at **67C**
- Keep mash **0 min** at **76C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Fawcett Pale Ale Maris Otter	5 kg (82.4%)	80 %	5
Grain	Fawcett - Dark Crystal	0.5 kg (8.2%)	71 %	300
Grain	Jęczmień palony	0.07 kg (1.2%)	55 %	985
Grain	Płatki owsiane	0.5 kg (8.2%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	20 g	60 min	7 %
Boil	Challenger	20 g	10 min	7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's -M15 Empire Ale	Ale	Dry	10 g	Mangrove Jack's

## Extras

Type	Name	Amount	Use for	Time
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Flavor	Trawa żubrowa zamacerowana w wyższym alkoholu	5 g	Secondary	7 day(s)
Fining	Mech irlandzki	5 g	Boil	10 min