

# 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<br>Maris Otter | 5 kg (82.4%)   | 80 %  | 5   |
| Grain | Fawcett - Dark<br>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<br>-M15 Empire Ale | Ale  | Dry  | 10 g   | Mangrove Jack's |

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|        |   |     |           |          |
|--------|---|-----|-----------|----------|
| Flavor | Trawa żubrowa zamacerowana w wyższym alkoholu | 5 g | Secondary | 7 day(s) |
| Fining | Mech irlandzki                                | 5 g | Boil      | 10 min   |