

# Urodzinowe

- Gravity **12.1 BLG**
- ABV ---
- IBU **18**
- SRM **4.4**
- Style **Irish Red Ale**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

## Steps

- Temp **69 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

## Mash step by step

- Heat up **12 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **10 min** at **72C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

## Fermentables

| Type  | Name              | Amount     | Yield | EBC |
|-------|-------------------|------------|-------|-----|
| Grain | Strzegom Pale Ale | 3 kg (75%) | 79 %  | 6   |
| Grain | Biscuit Malt      | 1 kg (25%) | --- % | --- |

## Hops

| Use for | Name     | Amount | Time     | Alpha acid |
|---------|----------|--------|----------|------------|
| Boil    | flyer    | 15 g   | 20 min   | 9 %        |
| Boil    | Bramling | 15 g   | 20 min   | 6 %        |
| Dry Hop | flyer    | 10 g   | 3 day(s) | 9 %        |
| Dry Hop | Bramling | 10 g   | 3 day(s) | 6 %        |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 10 g   | Fermentis  |