

# Urodzinowe

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- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **18**
- SRM **10.9**
- Style **Fruit Beer**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **27.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.6 liter(s)**
- Total mash volume **21.4 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16.6 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

## Fermentables

| Type  | Name                         | Amount         | Yield | EBC |
|-------|------------------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński          | 3 kg (63.2%)   | 80 %  | 4   |
| Grain | Karmelowy Czerwony           | 1 kg (21.1%)   | 75 %  | 59  |
| Grain | Cara Gold Castlemalting      | 0.5 kg (10.5%) | 78 %  | 120 |
| Grain | Briess - 2 Row Carapils Malt | 0.25 kg (5.3%) | 75 %  | 3   |

## Hops

| Use for | Name            | Amount | Time   | Alpha acid |
|---------|-----------------|--------|--------|------------|
| Boil    | Hallertau Blanc | 15 g   | 60 min | 11 %       |
| Boil    | Hallertau Blanc | 10 g   | 0 min  | 11 %       |

## Yeasts

| Name    | Type  | Form  | Amount | Laboratory |
|---------|-------|-------|--------|------------|
| w 34/70 | Lager | Slant | 500 ml | ---        |

## Extras

| Type | Name                   | Amount | Use for | Time  |
|------|------------------------|--------|---------|-------|
| Herb | kwiat hibiskusa        | 100 g  | Boil    | 5 min |
| Herb | płatki dzikiej róży    | 50 g   | Boil    | 5 min |
| Herb | suszone czerwone owoce | 50 g   | Boil    | 5 min |