

## Urodzinowe- ciemne

- Gravity **20 BLG**
- ABV **8.8 %**
- IBU **40**
- SRM **50.6**
- Style **Sweet Stout**

### Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **8 %**
- Size with trub loss **14 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **19.1 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **21.8 liter(s)**
- Total mash volume **27.7 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **21.8 liter(s)** of strike water to **74.5C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **20 min** at **72C**
- Sparge using **3.2 liter(s)** of **76C** water or to achieve **19.1 liter(s)** of wort

### Fermentables

| Type  | Name                        | Amount        | Yield  | EBC  |
|-------|-----------------------------|---------------|--------|------|
| Grain | Strzegom Monachijski typ II | 2 kg (31.2%)  | 79 %   | 22   |
| Grain | Viking Pale Ale malt        | 2 kg (31.2%)  | 80 %   | 5    |
| Grain | płatki jęczmienne           | 0.4 kg (6.2%) | 60 %   | 4    |
| Grain | Castle Cafe                 | 0.5 kg (7.8%) | 75.5 % | 480  |
| Grain | Strzegom Karmel 600         | 0.2 kg (3.1%) | 68 %   | 601  |
| Grain | Jęczmień palony             | 0.2 kg (3.1%) | 55 %   | 985  |
| Sugar | Milk Sugar (Lactose)        | 0.5 kg (7.8%) | 76.1 % | 0    |
| Grain | Carafa III                  | 0.2 kg (3.1%) | 70 %   | 1400 |
| Grain | Płatki owsiane              | 0.4 kg (6.2%) | 60 %   | 3    |

### Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Magnum | 30 g   | 40 min | 13.5 %     |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11.5 g | Fermentis  |

## Extras

| Type   | Name                             | Amount | Use for  | Time  |
|--------|----------------------------------|--------|----------|-------|
| Flavor | Kawa- zaparzona do refermentacji | 150 g  | Bottling | 0 min |

## Notes

- Wyszło bardzo dobre, słodkie, treściwe, piana średnia -> słaba  
*Mar 28, 2024, 4:27 PM*