

Kundel urodzinowy

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **16**
- SRM **4.3**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **8 %**
- Size with trub loss **23.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **88 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **68 C**, Time **666 min**

Mash step by step

- Heat up **14 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **666 min** at **68C**
- Sparge using **20.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|------------|-------|-----|
| Grain | Viking Pale Ale malt | 3 kg (75%) | 80 % | 5 |
| Grain | Viking Munich Malt | 1 kg (25%) | 78 % | 18 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------|--------|--------|------------|
| Boil | Marynka | 10 g | 50 min | 10 % |
| Boil | Marynka | 9 g | 20 min | 10 % |
| Whirlpool | Simcoe | 10 g | 0 min | 13.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|------|--------|------------|
| Danstar - Nottingham | Ale | Dry | 11 g | Danstar |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|-------|
| Fining | Mech irlandzki | 5 g | Boil | 5 min |