

Urodzinowe M v.2024

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **28**
- SRM **32.5**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **84 %**
- 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 **30 min**
- Temp **78 C**, Time **1 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 **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **14.5 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 | 4 kg (62.5%) | 80 % | 5 |
| Grain | Castle Cafe | 0.5 kg (7.8%) | 75.5 % | 480 |
| Grain | Carafa III | 0.25 kg (3.9%) | 70 % | 1034 |
| Grain | Viking Czekoladowy ciemny | 0.25 kg (3.9%) | 67 % | 900 |
| Grain | Płatki owsiane | 0.9 kg (14.1%) | 60 % | 3 |
| Sugar | Milk Sugar (Lactose) | 0.5 kg (7.8%) | 76.1 % | 0 |

podbicie blg o około 2 pkt

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------------|--------|--------|------------|
| Boil | Fuggles | 50 g | 60 min | 4.2 % |
| Boil | Nelson Sauvín | 10 g | 60 min | 11 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|---|-----|-------|--------|-----------|
| Lallemand - LalBrew American East Coast - New England | Ale | Slant | 200 ml | Lallemand |
|---|-----|-------|--------|-----------|

Extras

| Type | Name | Amount | Use for | Time |
|-------|---------------|--------|-----------|----------|
| Spice | kakao | 100 g | Secondary | 5 day(s) |
| Spice | vanilia laska | 1 g | Secondary | 3 day(s) |