

Porter lodowy

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **29**
- SRM **29.6**
- Style **Baltic Porter**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **22.9 liter(s)**
- Total mash volume **30.1 liter(s)**

Steps

- Temp **45 C**, Time **20 min**
- Temp **52 C**, Time **20 min**
- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **15 min**

Mash step by step

- Heat up **22.9 liter(s)** of strike water to **48.9C**
- Add grains
- Keep mash **20 min** at **45C**
- Keep mash **20 min** at **52C**
- Keep mash **40 min** at **64C**
- Keep mash **15 min** at **72C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--|-----------------|-------|-----|
| Grain | Stód Pilsneński Viking | 3.74 kg (48.9%) | 80 % | 4 |
| Grain | Stód KARMELOWY 600 EBC Viking https://brewness.com/user/my-recipes Mal | 1 kg (13.1%) | 68 % | 600 |
| Grain | stód monahijski jasny | 0.57 kg (7.4%) | 68 % | 10 |
| Grain | Slod monahijski ciemny Viking | 1.075 kg (14%) | 78 % | 22 |
| Grain | stód pale ale crisp | 0.77 kg (10.1%) | 80 % | 4 |
| Sugar | cukier | 0.5 kg (6.5%) | 100 % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------------------------|--------|--------|------------|
| Boil | Marynka | 40 g | 60 min | 6.7 % |
| Aroma (end of boil) | Marynka | 10 g | 10 min | 6.7 % |
| Aroma (end of boil) | Sybilla własny - szyszki | 20 g | 10 min | 5 % |

| | | | | |
|------|----------|------|--------|-------|
| Boil | Sybillia | 10 g | 60 min | 3.5 % |
|------|----------|------|--------|-------|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------------------|-------|------|--------|------------|
| Gozdawa POK V - PORTER & KVASS | Lager | Dry | 10 g | --- |
| German lager Gozdawa W35 | Lager | Dry | 10 g | --- |