

# 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<br><a href="https://brewness.com/user/my-recipes">https://brewness.com/user/my-recipes</a> 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 | Sybilla | 10 g | 60 min | 3.5 % |
|------|---------|------|--------|-------|

## Yeasts

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