

70

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **33**
- SRM **34.3**
- Style **Foreign Extra Stout**

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 **3.5 liter(s) / kg**
- Mash size **29.4 liter(s)**
- Total mash volume **37.8 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **29.4 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **75C**
- Sparge using **8 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|---------------|-------|------|
| Grain | Viking Pale Ale malt | 5 kg (59.5%) | 80 % | 5 |
| Grain | Płatki owsiane | 1 kg (11.9%) | 60 % | 3 |
| Grain | Strzegom Czekoladowy ciemny | 0.2 kg (2.4%) | 68 % | 1200 |
| Grain | Strzegom Monachijski typ II | 1 kg (11.9%) | 79 % | 22 |
| Grain | Karmelowy Czerwony | 0.5 kg (6%) | 75 % | 59 |
| Grain | Weyermann Specjal W | 0.3 kg (3.6%) | 68 % | 300 |
| Grain | Jęczmień prazony 900 | 0.4 kg (4.8%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------------------|--------|---------|------------|
| Boil | flex | 4 g | 180 min | 63.7 % |
| Aroma (end of boil) | Northern Brewer 23 | 30 g | 15 min | 8.6 % |

Yeasts

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

| | | | | |
|--------|-----|-------|--------|-------------------------|
| us -05 | Ale | Slant | 500 ml | WOJTICZ-GESTWA 3 TYG |
|--------|-----|-------|--------|-------------------------|