

Grom

- Gravity **18.4 BLG**
- ABV **8 %**
- IBU **18**
- SRM **4.5**
- Style **Baltic Porter**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **3 %**
- Size with trub loss **13.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **4 %/h**
- Boil size **14.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.3 liter(s)**
- Total mash volume **15.8 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **68 C**, Time **15 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **12.3 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **5.7 liter(s)** of **76C** water or to achieve **14.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|----------------|--------|-----|
| Grain | Pilzneński | 1.5 kg (37.5%) | 81 % | 4 |
| Grain | Barley, Raw | 0.5 kg (12.5%) | 60.9 % | 4 |
| Grain | Strzegom Pale Ale | 1.5 kg (37.5%) | 79 % | 6 |
| Sugar | demerara | 0.5 kg (12.5%) | 100 % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Progress | 10 g | 60 min | 6.9 % |
| Boil | Celeia | 10 g | 60 min | 5.3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | --- |

Extras

| Type | Name | Amount | Use for | Time |
|--------|---------|--------|---------|--------|
| Flavor | daktyle | 200 g | Boil | 30 min |

| | | | | |
|--------|--------|-------|------|--------|
| Flavor | śliwki | 200 g | Boil | 30 min |
|--------|--------|-------|------|--------|