

Mała czarna

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **34**
- SRM **26.6**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **6.4 liter(s)**
- Total mash volume **8.9 liter(s)**

Steps

- Temp **65 C**, Time **60 min**

Mash step by step

- Heat up **6.4 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 2 kg (78.4%) | 80 % | 5 |
| Grain | Jęczmień palony | 0.25 kg (9.8%) | 55 % | 1100 |
| Grain | Strzegom Monachijski typ I | 0.3 kg (11.8%) | 79 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 22 g | 60 min | 8.4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|--------|--------|------------------|
| FM12 W szkocką kratę | Ale | Liquid | 100 ml | Fermentum Mobile |