

Czarny

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **58**
- SRM **72.7**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **50 min**
- Evaporation rate **12 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **12 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **7.2 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|------|
| Grain | Maris Otter Crisp | 1 kg (25%) | 83 % | 12 |
| Grain | Golden Ale Strzegom | 1 kg (25%) | --- % | 14 |
| Grain | Castlemalting Kawowy | 0.5 kg (12.5%) | --- % | 250 |
| Grain | Strzegom pszenica prażona | 0.5 kg (12.5%) | 70 % | 1000 |
| Grain | Strzegom Czekoladowy jasny | 0.5 kg (12.5%) | 68 % | 400 |
| Grain | Weyermann - Carafa II | 0.5 kg (12.5%) | 70 % | 837 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil | Marynka | 10 g | 45 min | 8.8 % |
| Boil | Sovereign | 50 g | 45 min | 6.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US 05 | Ale | Dry | 11 g | --- |