

Ciorny beret

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **25**
- SRM **42.8**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **14.8 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **11.5 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **76C**
- Sparge using **8.2 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|----------------|--------|------|
| Grain | Strzegom Pale Ale | 1.5 kg (45.5%) | 79 % | 6 |
| Grain | Żytni | 0.5 kg (15.2%) | 85 % | 8 |
| Grain | Płatki owsiane | 0.5 kg (15.2%) | 85 % | 3 |
| Grain | Weyermann - Dehusked Carafa III | 0.25 kg (7.6%) | 70 % | 1024 |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.15 kg (4.5%) | 73 % | 1001 |
| Grain | Fawcett - Czekoladowy | 0.15 kg (4.5%) | 60 % | 788 |
| Grain | Caraaroma | 0.15 kg (4.5%) | 78 % | 400 |
| Grain | Special B Malt | 0.1 kg (3%) | 65.2 % | 315 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|------------|-------|--------|--------|------------|
| First Wort | lunga | 12 g | 60 min | 11 % |

Yeasts

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

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|--|-----|-------|--------|------------|
| WLP645 - Brettanomyces clausenii | Ale | Slant | 100 ml | White Labs |
|--|-----|-------|--------|------------|