

Czarne Pale Ale

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **73**
- SRM **28.8**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.3 liter(s)**
- Total mash volume **11 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 2.3 kg (83.6%) | 80 % | 5 |
| Grain | Strzegom Karmel 300 | 0.2 kg (7.3%) | 70 % | 299 |
| Grain | Czekoladowy | 0.15 kg (5.5%) | 60 % | 788 |
| Grain | Carafa II | 0.1 kg (3.6%) | 70 % | 812 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------|--------|----------|------------|
| Boil | Bravo | 10 g | 60 min | 14.5 % |
| Boil | El Dorado | 10 g | 20 min | 15.5 % |
| Aroma (end of boil) | Sabro | 20 g | 10 min | 15.8 % |
| Dry Hop | Sabro | 70 g | 7 day(s) | 15.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 5 g | Fermentis |