

Black

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **96**
- SRM **36.6**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.1 liter(s)**

Mash information

- Mash efficiency **63 %**
- Liquor-to-grist ratio **4.1 liter(s) / kg**
- Mash size **28.1 liter(s)**
- Total mash volume **34.9 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|-----------------|-------|-----|
| Grain | Viking Pale Ale malt | 5.75 kg (83.9%) | 80 % | 5 |
| Grain | Strzegom Czekoladowy 400 | 0.5 kg (7.3%) | 68 % | 400 |
| Grain | Chocolate Malt (US) | 0.35 kg (5.1%) | 60 % | 690 |
| Grain | Carafa II | 0.25 kg (3.6%) | 70 % | 812 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil | Bravo | 30 g | 60 min | 13.9 % |
| Boil | Dr Rudi | 30 g | 20 min | 11.3 % |
| Boil | Cascade | 20 g | 15 min | 7.1 % |
| Boil | Simcoe | 10 g | 15 min | 13.3 % |
| Boil | Cascade | 40 g | 5 min | 7.1 % |
| Boil | Simcoe | 20 g | 5 min | 13.3 % |
| Dry Hop | Cascade | 40 g | 4 day(s) | 7.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |