

## 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  |