

## Black boss

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- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **75**
- SRM **38.6**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **16 liter(s)**

### Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Weyermann - Pale Ale Malt   | 2.5 kg (54.6%) | 85 %  | 7    |
| Grain | Weyermann - Melanoiden Malt | 0.4 kg (8.7%)  | 81 %  | 53   |
| Grain | Pszeniczny                  | 0.5 kg (10.9%) | 85 %  | 4    |
| Grain | Biscuit Malt                | 0.2 kg (4.4%)  | 79 %  | 45   |
| Grain | Żytni                       | 0.4 kg (8.7%)  | 85 %  | 8    |
| Grain | Żytni                       | 0.5 kg (10.9%) | 85 %  | 1200 |
| Grain | cukier                      | 0.08 kg (1.7%) | --- % | ---  |

### Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Simcoe  | 30 g   | 60 min | 13.2 %     |
| Boil    | Chinook | 30 g   | 15 min | 13 %       |
| Boil    | Chinook | 20 g   | 1 min  | 13 %       |