

## #3 Black IPA

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **73**
- SRM **30.4**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.8 liter(s)**
- Total mash volume **31.7 liter(s)**

### Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt        | 6.9 kg (87%)   | 80 %  | 5    |
| Grain | Strzegom Karmel 150         | 0.57 kg (7.2%) | 75 %  | 150  |
| Grain | Strzegom Czekoladowy ciemny | 0.46 kg (5.8%) | 68 %  | 1200 |

### Hops

| Use for | Name     | Amount | Time     | Alpha acid |
|---------|----------|--------|----------|------------|
| Boil    | Amarillo | 90 g   | 80 min   | 9.5 %      |
| Dry Hop | Amarillo | 50 g   | 4 day(s) | 9.5 %      |

### Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-04 | Ale  | Dry  | 10 g   | ---        |

### Extras

| Type   | Name       | Amount | Use for | Time   |
|--------|------------|--------|---------|--------|
| Fining | whirlflock | 5 g    | Boil    | 10 min |

### Notes

- gotowanie 30/08/2018, filtrowanie w nocy od 22 podczas  
ciemny sód czekoladowy poszedł na ok 1,5 h przed końcem  
whirlflock - 20 minut przed końcem  
chmienie 01/09/2018 po chmieleniu blg 18,7  
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