

## black aipa tb 16blg

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **70**
- SRM **31.6**

### Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **18 %/h**
- Boil size **30.2 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **27.4 liter(s)**

### Steps

- Temp **67 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **20.5 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **16.6 liter(s)** of **76C** water or to achieve **30.2 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount          | Yield | EBC |
|-------|----------------------|-----------------|-------|-----|
| Grain | Viking Pale Ale malt | 5.75 kg (83.9%) | 80 %  | 5   |
| Grain | Strzegom Karmel 300  | 0.5 kg (7.3%)   | 70 %  | 299 |
| Grain | Chocolate Malt (UK)  | 0.35 kg (5.1%)  | 73 %  | 887 |
| Grain | Carafa II            | 0.25 kg (3.6%)  | 70 %  | 812 |

### Hops

| Use for                      | Name      | Amount | Time     | Alpha acid |
|------------------------------|-----------|--------|----------|------------|
| Boil                         | Chinook   | 15 g   | 60 min   | 13 %       |
| Boil                         | Bravo     | 25 g   | 60 min   | 15.5 %     |
| Boil                         | El Dorado | 25 g   | 20 min   | 15 %       |
| Boil                         | Sabro     | 50 g   | 0 min    | 15 %       |
| po wyłączeniu palnika 10 min |           |        |          |            |
| Dry Hop                      | Sabro     | 50 g   | 3 day(s) | 15 %       |