

# Black IPA lekkuszek

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **20**
- SRM **34.2**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **18.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.7 liter(s)**
- Total mash volume **18.3 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **77 C**, Time **1 min**

## Mash step by step

- Heat up **13.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **9.4 liter(s)** of **76C** water or to achieve **18.5 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount          | Yield | EBC  |
|-------|----------------------|-----------------|-------|------|
| Grain | Viking Pale Ale malt | 1.96 kg (42.9%) | 80 %  | 5    |
| Grain | Viking Pilsner malt  | 1.12 kg (24.5%) | 82 %  | 4    |
| Grain | Viking Wheat Malt    | 0.84 kg (18.4%) | 83 %  | 5    |
| Grain | Strzegom Karmel 600  | 0.28 kg (6.1%)  | 68 %  | 800  |
| Grain | Strzegom Karmel 600  | 0.28 kg (6.1%)  | 68 %  | 600  |
| Grain | Jęczmień palony      | 0.06 kg (1.3%)  | 55 %  | 1000 |
| Grain | Strzegom Barwiący    | 0.03 kg (0.7%)  | 68 %  | 1300 |

## Hops

| Use for             | Name     | Amount  | Time     | Alpha acid |
|---------------------|----------|---------|----------|------------|
| Aroma (end of boil) | Amarillo | 14 g    | 15 min   | 9.5 %      |
| Aroma (end of boil) | Cascade  | 26.6 g  | 15 min   | 6 %        |
| Dry Hop             | Amarillo | 30.43 g | 6 day(s) | 9.5 %      |
| Dry Hop             | Cascade  | 30.43 g | 6 day(s) | 6 %        |
| Dry Hop             | Ekuanot  | 12.17 g | 6 day(s) | 14 %       |

## Yeasts

| Name                           | Type | Form | Amount | Laboratory      |
|--------------------------------|------|------|--------|-----------------|
| Mangrove Jack's M12 Voss Kveik | Ale  | Dry  | 6.7 g  | Mangrove Jack's |