

# Black Ipa

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- Gravity **19.8 BLG**
- ABV **8.7 %**
- IBU **77**
- SRM **8.8**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **25.5 liter(s)**
- Total mash volume **34 liter(s)**

## Steps

- Temp **66 C**, Time **10 min**
- Temp **70 C**, Time **40 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **25.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **10 min** at **66C**
- Keep mash **40 min** at **70C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **8.7 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 5.5 kg (64.7%) | 80 %  | 5   |
| Grain | Pszeniczny           | 1 kg (11.8%)   | 85 %  | 4   |
| Grain | Viking Melanoidynowy | 0.5 kg (5.9%)  | 75 %  | 60  |
| Grain | Weyermann - Carared  | 0.5 kg (5.9%)  | 75 %  | 45  |
| Grain | Płatki pszeniczne    | 0.5 kg (5.9%)  | 60 %  | 3   |
| Grain | Płatki owsiane       | 0.5 kg (5.9%)  | 60 %  | 3   |

## Hops

| Use for             | Name          | Amount | Time     | Alpha acid |
|---------------------|---------------|--------|----------|------------|
| Mash                | Magnum        | 35 g   | 40 min   | 13.5 %     |
| Aroma (end of boil) | Sabro         | 35 g   | 25 min   | 15 %       |
| Aroma (end of boil) | Nelson Sauvín | 25 g   | 25 min   | 11 %       |
| Whirlpool           | Sabro         | 70 g   | 10 min   | 15 %       |
| Whirlpool           | Nelson Sauvín | 100 g  | 10 min   | 11 %       |
| Dry Hop             | Sabro         | 40 g   | 7 day(s) | 15 %       |

|         |                  |      |          |      |
|---------|------------------|------|----------|------|
| Dry Hop | Nelson Sauvignon | 50 g | 7 day(s) | 11 % |
|---------|------------------|------|----------|------|

### Yeasts

| Name  | Type | Form  | Amount | Laboratory |
|-------|------|-------|--------|------------|
| Us 05 | Ale  | Slant | 200 ml | Moje       |