# Black ipa

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **72**
- SRM **24.6**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **48 liter(s)**
- Trub loss **5 %**
- Size with trub loss **50.4 liter(s)**
- Boil time **75 min**
- Evaporation rate **5 %/h**
- Boil size **56.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **36 liter(s)**
- Total mash volume **48 liter(s)**

## Fermentables

| Type | Name | Amount | Yield | EBC |
|---|---|---|---|---|
| Grain | Pilzneński | 8 kg *(66.7%)* | 81 % | 4 |
| Grain | Weyermann - Carared | 1 kg *(8.3%)* | 75 % | 45 |
| Grain | Weyermann - Carafa I | 1 kg *(8.3%)* | 70 % | 900 |
| Grain | Płatki owsiane | 1 kg *(8.3%)* | 85 % | 3 |
| Grain | Żytni | 1 kg *(8.3%)* | 85 % | 8 |

## Hops

| Use for | Name | Amount | Time | Alpha acid |
|---|---|---|---|---|
| Boil | Columbus/Tomahawk/Zeus | 30 g | 50 min | 15.5 % |
| Boil | Chinook | 50 g | 20 min | 13 % |
| Boil | Chinook | 50 g | 10 min | 13 % |
| Boil | Simcoe | 50 g | 15 min | 13.2 % |
| Boil | Simcoe | 50 g | 5 min | 13.2 % |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|---|---|---|---|---|
| Wyeast - American Ale | Ale | Slant | 100 ml | Wyeast Labs |

## Extras

| Type | Name | Amount | Use for | Time |
|---|---|---|---|---|
| Water Agent | gips | 5 g | Boil | 10 min |