

# ciemnosci

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- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **77**
- SRM **28.3**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.3 liter(s)**
- Total mash volume **12.4 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**

## Mash step by step

- Heat up **9.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **6.5 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 2.5 kg (80.6%) | 80 %  | 5   |
| Grain | carafa special 1     | 0.2 kg (6.5%)  | 75 %  | 900 |
| Grain | Płatki owsiane       | 0.2 kg (6.5%)  | 85 %  | 3   |
| Grain | Special B Castle     | 0.2 kg (6.5%)  | 70 %  | 350 |

## Hops

| Use for             | Name    | Amount | Time     | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Boil                | Citra   | 15 g   | 25 min   | 13.1 %     |
| Boil                | Citra   | 15 g   | 0 min    | 13.1 %     |
| Boil                | Cascade | 10 g   | 60 min   | 9 %        |
| Boil                | Cascade | 30 g   | 0 min    | 9 %        |
| Aroma (end of boil) | Mosaic  | 15 g   | 20 min   | 12.6 %     |
| Aroma (end of boil) | Mosaic  | 15 g   | 0 min    | 12.6 %     |
| Dry Hop             | citra   | 20 g   | 3 day(s) | 13.1 %     |
| Dry Hop             | Mosaic  | 20 g   | 3 day(s) | 12.6 %     |
| Boil                | Cascade | 10 g   | 25 min   | 9 %        |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|       |     |        |       |                  |
|-------|-----|--------|-------|------------------|
| fm 52 | Ale | Liquid | 30 ml | fermentum mpbile |
|-------|-----|--------|-------|------------------|