

Czystki_magazynu

- Gravity **12.6 BLG**
- ABV ---
- IBU **72**
- SRM **33.9**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14.9 liter(s)**
- Total mash volume **19.1 liter(s)**

Steps

- Temp **67 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **14.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **15.1 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 | 3.2 kg (70.3%) | 80 % | 5 |
| Grain | Caramel/Crystal Malt - 40L | 0.4 kg (8.8%) | 74 % | 79 |
| Grain | Briess - Chocolate Malt | 0.2 kg (4.4%) | 60 % | 690 |
| Grain | Carafa III | 0.2 kg (4.4%) | 70 % | 1034 |
| Sugar | biały | 0.3 kg (6.6%) | --- % | --- |
| Grain | Płatki owsiane | 0.15 kg (3.3%) | 85 % | 3 |
| Grain | Płatki orkiszowe | 0.1 kg (2.2%) | --- % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------|--------|----------|------------|
| Boil | Sticklebract | 20 g | 70 min | 12 % |
| Boil | Sticklebract | 25 g | 20 min | 12 % |
| Boil | Marynka | 30 g | 15 min | 9.5 % |
| Boil | Sticklebract | 25 g | 2 min | 12 % |
| Dry Hop | Sticklebract | 30 g | 4 day(s) | 12 % |
| Dry Hop | Marynka | 20 g | 4 day(s) | 9.5 % |

Yeasts

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

| Name | Type | Form | Amount | Laboratory |
|-------------|-------------|-------------|---------------|-------------------|
| us-05 | Ale | Dry | 11.5 g | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-------------|---------------|----------------|-------------|
| Water Agent | Gips | 4 g | Mash | --- |
| Fining | Mech | 4 g | Boil | 10 min |