

Czarny Las (Black IPA)

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **34**
- SRM **32.7**
- 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 **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **24.4 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **18.3 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **0 min** at **76C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------|----------------|-------|------|
| Grain | Pilzneński | 4.5 kg (73.8%) | 81 % | 4 |
| Grain | Monachijski | 1 kg (16.4%) | 80 % | 16 |
| Grain | Carafa III | 0.6 kg (9.8%) | 70 % | 1034 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | Chinook | 10 g | 45 min | 13 % |
| Boil | Centennial | 15 g | 30 min | 10.5 % |
| Boil | Simcoe | 15 g | 15 min | 13.2 % |