

# Czarny Pan

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **22**
- SRM **25.4**
- Style **Oatmeal Stout**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **26.2 liter(s)**

## Steps

- Temp **70 C**, Time **120 min**

## Mash step by step

- Heat up **19.6 liter(s)** of strike water to **78.4C**
- Add grains
- Keep mash **120 min** at **70C**
- Sparge using **19.2 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

## Fermentables

| Type  | Name                             | Amount         | Yield | EBC  |
|-------|----------------------------------|----------------|-------|------|
| Grain | Briess - Pale Ale Malt           | 3.5 kg (53.4%) | 80 %  | 7    |
| Grain | Strzegom Pilzneński              | 1 kg (15.3%)   | 80 %  | 4    |
| Grain | Oats, Flaked                     | 0.8 kg (12.2%) | 80 %  | 2    |
| Grain | Caraaroma                        | 0.5 kg (7.6%)  | 78 %  | 400  |
| Grain | Karmelowy Czerwony               | 0.2 kg (3.1%)  | 75 %  | 60   |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.2 kg (3.1%)  | 73 %  | 1001 |
| Grain | Simpsons - Coffee Malt           | 0.2 kg (3.1%)  | 74 %  | 296  |
| Grain | Brown Malt (British Chocolate)   | 0.1 kg (1.5%)  | 70 %  | 128  |
| Grain | Jęczmień palony                  | 0.05 kg (0.8%) | 55 %  | 985  |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | lunga   | 20 g   | 60 min | 11 %       |
| Boil    | Fuggles | 15 g   | 15 min | 4.5 %      |

## Yeasts

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

|             |     |     |        |        |
|-------------|-----|-----|--------|--------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |
|-------------|-----|-----|--------|--------|