

Czarna Pantera

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **29**
- SRM **32.8**
- Style **Oatmeal Stout**

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 **19.5 liter(s)**
- Total mash volume **26 liter(s)**

Steps

- Temp **68 C**, Time **50 min**

Mash step by step

- Heat up **19.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **50 min** at **68C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale | 3.5 kg (53.8%) | 79 % | 6 |
| Grain | Strzegom Monachijski typ I | 0.5 kg (7.7%) | 79 % | 16 |
| Grain | Viking Malt Karmelowy 150 | 0.5 kg (7.7%) | 75 % | 150 |
| Grain | Viking Malt Karmelowy 300 | 0.5 kg (7.7%) | 73 % | 300 |
| Grain | Viking Malt Czekoladowy Jasny | 0.15 kg (2.3%) | 68 % | 400 |
| Grain | Viking Malt Barwiący | 0.15 kg (2.3%) | 65 % | 1400 |
| Grain | Płatki owsiane | 0.5 kg (7.7%) | 85 % | 3 |
| Grain | Strzegom Karmel 600 | 0.2 kg (3.1%) | 68 % | 601 |
| Grain | Strzegom Monachijski typ II | 0.5 kg (7.7%) | 79 % | 22 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 30 g | 60 min | 10 % |

Yeasts

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

| | | | | |
|-------------|-----|-----|------|--------|
| Safale S-04 | Ale | Dry | 11 g | Safale |
|-------------|-----|-----|------|--------|

Extras

| Type | Name | Amount | Use for | Time |
|--------|---------|--------|---------|--------|
| Flavor | Laktoza | 500 g | Boil | 15 min |