

Mała Czarna

- Gravity **25.7 BLG**
- ABV **12.1 %**
- IBU **92**
- SRM **81.7**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **300 min**
- Evaporation rate **11 %/h**
- Boil size **44.6 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **33.4 liter(s)**
- Total mash volume **46.8 liter(s)**

Steps

- Temp **45 C**, Time **15 min**
- Temp **62 C**, Time **50 min**
- Temp **72 C**, Time **25 min**

Mash step by step

- Heat up **33.4 liter(s)** of strike water to **50C**
- Add grains
- Keep mash **15 min** at **45C**
- Keep mash **50 min** at **62C**
- Keep mash **25 min** at **72C**
- Sparge using **24.6 liter(s)** of **76C** water or to achieve **44.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale | 6 kg (44.9%) | 79 % | 6 |
| Grain | Strzegom Monachijski typ II | 3 kg (22.5%) | 79 % | 22 |
| Grain | Strzegom Karmel 600 | 1 kg (7.5%) | 68 % | 601 |
| Grain | Strzegom Karmel 150 | 0.7 kg (5.2%) | 75 % | 150 |
| Grain | Strzegom Czekoladowy ciemny | 0.7 kg (5.2%) | 68 % | 1200 |
| Grain | Oats, Flaked | 0.46 kg (3.4%) | 80 % | 2 |
| Grain | Weyermann - Pszeniczny Czekoladowy | 0.5 kg (3.7%) | 73 % | 1001 |
| Grain | Jęczmień palony | 1 kg (7.5%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------|--------|--------|------------|
| Boil | Warrior | 30 g | 60 min | 15.5 % |
| Boil | Green Bullet | 30 g | 60 min | 11 % |

| | | | | |
|------|---------|------|--------|-------|
| Boil | Mosaic | 10 g | 50 min | 10 % |
| Boil | Flyer | 30 g | 50 min | 11 % |
| Boil | lunga | 30 g | 40 min | 11 % |
| Boil | Fuggles | 30 g | 30 min | 4.5 % |
| Boil | Mosaic | 20 g | 20 min | 10 % |
| Boil | Chinook | 30 g | 10 min | 5.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 23 g | Safale |