

Pierwsze ostre

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **10**
- SRM **26.3**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.2 liter(s)**
- Total mash volume **13.6 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **73 C**, Time **40 min**

Mash step by step

- Heat up **10.2 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **40 min** at **73C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Monachijski typ I | 3 kg (88.2%) | 79 % | 16 |
| Grain | Strzegom Czekoladowy ciemny | 0.25 kg (7.4%) | 68 % | 1200 |
| Grain | Karmelowy Czerwony | 0.15 kg (4.4%) | 75 % | 59 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil | Magnum | 5 g | 60 min | 13.5 % |
| Mash | Saaz (Czech Republic) | 20 g | 40 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------------|------|------|--------|------------|
| Gozdawa - Pure Ale Yeast 7 | Ale | Dry | 10 g | Gozdawa |

Extras

| Type | Name | Amount | Use for | Time |
|-------|--------|--------|-----------|------|
| Spice | chilli | 100 g | Secondary | --- |