

Orkiszowe

- Gravity **12.9 BLG**
- ABV ---
- IBU **22**
- SRM **6.1**
- Style **Specialty Beer**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **19.7 liter(s)**

Mash information

- Mash efficiency **55 %**
- Liquor-to-grist ratio **3.1 liter(s) / kg**
- Mash size **14.9 liter(s)**
- Total mash volume **19.7 liter(s)**

Steps

- Temp **50 C**, Time **10 min**
- Temp **67 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **14.9 liter(s)** of strike water to **54.8C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **50 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **9.6 liter(s)** of **76C** water or to achieve **19.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------|---------------|-------|-----|
| Grain | Słód orkiszowy | 4.8 kg (100%) | 80 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 6 g | 60 min | 15.5 % |
| Boil | Simcoe | 10 g | 5 min | 13.2 % |
| Boil | Centennial | 10 g | 5 min | 10.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale | Dry | 11.5 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|------------------|--------|---------|------|
| Water Agent | chlerek wapnia | 1 g | Mash | --- |
| Water Agent | siarczan magnezu | 0.5 g | Mash | --- |