

Pierwsze Żytko

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **49**
- SRM **5.4**
- Style **Rye IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **27.6 liter(s)**

Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **20.7 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|-------|-----|
| Grain | Weyermann - Pilsner Malt | 3.1 kg (44.9%) | 81 % | 5 |
| Grain | Żytńi | 2.6 kg (37.7%) | 85 % | 8 |
| Grain | Weyermann - Pale Ale Malt | 1.2 kg (17.4%) | 85 % | 7 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|----------|------------|
| Boil | Magnum | 27 g | 60 min | 13.5 % |
| Boil | Lublin (Lubelski) | 50 g | 60 min | 4 % |
| Aroma (end of boil) | Amarillo | 25 g | 1 min | 9.5 % |
| Dry Hop | Amarillo | 25 g | 7 day(s) | 9.5 % |

Yeasts

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

Extras

| Type | Name | Amount | Use for | Time |
|-------------|---------------|--------|---------|--------|
| Water Agent | kswas mlekowy | 5 g | Mash | 85 min |
| Water Agent | kwac mlekowy | 2 g | Boil | 1 min |