

American Rye (Amarillo i CTZ)

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **27**
- SRM **4.6**
- Style **American Wheat or Rye Beer**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33 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 **69 C**, Time **60 min**
- Temp **80 C**, Time **5 min**

Mash step by step

- Heat up **19.5 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **5 min** at **80C**
- Sparge using **20 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3.5 kg (53.8%) | 80 % | 5 |
| Grain | Żytni | 2.5 kg (38.5%) | 85 % | 8 |
| Grain | Strzegom Pszeniczny | 0.5 kg (7.7%) | 81 % | 6 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 20 g | 60 min | 15.5 % |
| Whirlpool | Amarillo | 20 g | 5 min | 9.5 % |
| Dry Hop | Amarillo | 30 g | 5 day(s) | 9.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 10 g | Fermentis |