

149 EAJM

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **29**
- SRM **9.1**
- Style **American Wheat or Rye Beer**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **25.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **77C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **25.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|----------------|-----------------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale | 3.6 kg (60%) | 79 % | 6 |
| Grain | kasza gryczana | 0.7 kg (11.7%) | 70 % | --- |
| Grain | Biscuit Malt | 0.5 kg (8.3%) | 79 % | 45 |
| Grain | Caramel/Crystal Malt - 120L | 0.2 kg (3.3%) | 72 % | 236 |
| Liquid Extract | syrop k | 1 kg (16.7%) | --- % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------------------|--------|--------|------------|
| Boil | Fuggles | 43 g | 90 min | 4.5 % |
| Boil | Fuggles | 21 g | 30 min | 4.5 % |
| Aroma (end of boil) | Saaz (Czech Republic) | 14 g | 5 min | 4.5 % |
| Aroma (end of boil) | kozierad | 4 g | 5 min | 1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------------------------|------|--------|--------|------------|
| WLP001 - California Ale Yeast | Ale | Liquid | 10 ml | White Labs |