

JAxX

- Gravity **12.4 BLG**
- ABV ---
- IBU **35**
- SRM **16.2**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 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 **63 C**, Time **30 min**
- Temp **73 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **73C**
- Keep mash **5 min** at **78C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|--------------|-------|-----|
| Grain | Strzegom Monachijski typ II | 3 kg (60%) | 79 % | 22 |
| Grain | Strzegom Pilzneński | 1.5 kg (30%) | 80 % | 4 |
| Grain | Strzegom Karmel 30 | 0.5 kg (10%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Marynka | 25 g | 60 min | 10 % |
| Boil | Lublin (Lubelski) | 20 g | 20 min | 4 % |
| Boil | Lublin (Lubelski) | 25 g | 5 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
| S-04 | Ale | Dry | 11.5 g | --- |