

MIX

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **40**
- SRM **4.3**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **30.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **30.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 5 kg (83.3%) | 80 % | 4 |
| Grain | Strzegom Monachijski typ I | 0.7 kg (11.7%) | 79 % | 16 |
| Grain | Weyermann - Carapils | 0.3 kg (5%) | 78 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------------------|--------|----------|------------|
| Boil | Saaz (Czech Republic) | 50 g | 60 min | 3.5 % |
| Boil | Magnum | 15 g | 60 min | 11.6 % |
| Boil | Premiant | 10 g | 50 min | 6.1 % |
| Boil | Lublin (Lubelski) | 30 g | 10 min | 2.6 % |
| Aroma (end of boil) | Cascade | 20 g | 0 min | 5.8 % |
| Dry Hop | Mosaic | 10 g | 4 day(s) | 13.2 % |
| Dry Hop | Citra | 10 g | 4 day(s) | 11.7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|-------------|-------------|---------------|-------------------|
| Safale US-05 | Ale | Slant | 100 ml | --- |