

Lager

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **28**
- SRM **17.7**
- Style **Premium American Lager**

Batch size

- Expected quantity of finished beer **39 liter(s)**
- Trub loss **5 %**
- Size with trub loss **41 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **49.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **30 liter(s)**
- Total mash volume **40 liter(s)**

Steps

- Temp **50 C**, Time **10 min**
- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **30 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **30 min** at **65C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **29.4 liter(s)** of **76C** water or to achieve **49.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|------------|-------|-----|
| Grain | Pilzneński | 5 kg (50%) | 81 % | 4 |
| Grain | Karmelowy Czerwony | 3 kg (30%) | 75 % | 150 |
| Grain | Viking Malt Monachijski typ II | 2 kg (20%) | 79 % | 21 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|----------|------------|
| Boil | Marynka | 50 g | 50 min | 8.8 % |
| Boil | Lublin (Lubelski) | 20 g | 50 min | 4 % |
| Dry Hop | Marynka | 50 g | 3 day(s) | 8.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------------------------|-------|------|--------|------------|
| Mangrove Jack's M84 Bohemian Lager | Lager | Dry | 20 g | --- |