

Maryna

- Gravity **16.4 BLG**
- ABV ---
- IBU **81**
- SRM **6.3**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **1 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **25.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **18.5 liter(s)**
- Total mash volume **24.1 liter(s)**

Steps

- Temp **44 C**, Time **0 min**
- Temp **53 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **18.5 liter(s)** of strike water to **47.6C**
- Add grains
- Keep mash **0 min** at **44C**
- Keep mash **10 min** at **53C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **25.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|----------------|-------|-----|
| Grain | Pilznieński | 4.7 kg (83.9%) | 81 % | 4 |
| Grain | Strzegom Karmel 30 | 0.5 kg (8.9%) | 75 % | 30 |
| Grain | Pszeniczny | 0.4 kg (7.1%) | --- % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------|--------|----------|------------|
| Boil | Marynka | 40 g | 60 min | 11 % |
| Boil | Marynka | 20 g | 30 min | 11 % |
| Boil | Marynka | 20 g | 15 min | 11 % |
| Boil | Marynka | 30 g | 5 min | 11 % |
| Dry Hop | Marynka | 60 g | 3 day(s) | 11 % |
| Whirlpool | Marynka | 40 g | 0 min | 11 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|---------------------------|-----|-----|--------|-----|
| Fermentis safbrew s-33 | Ale | Dry | 11.5 g | --- |
|---------------------------|-----|-----|--------|-----|