

MLECZNE WZGÓRZA

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **26**
- SRM **31.2**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **23.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.4 liter(s)**
- Total mash volume **23.6 liter(s)**

Steps

- Temp **70 C**, Time **60 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **18.4 liter(s)** of strike water to **77.1C**
- Add grains
- Keep mash **60 min** at **70C**
- Keep mash **0 min** at **76C**
- Sparge using **16.6 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------------|--------------|--------|------|
| Grain | Viking Pale Ale malt | 2 kg (32%) | 80 % | 5 |
| Grain | Monachijski Ciemny Steinbach | 2 kg (32%) | 100 % | 30 |
| Grain | Karmelowy Pszeniczny Strzegom | 0.5 kg (8%) | 79 % | 130 |
| Grain | Cookie Malt | 0.25 kg (4%) | 58.7 % | 150 |
| Grain | Strzegom Czekoladowy ciemny | 0.25 kg (4%) | 68 % | 1200 |
| Grain | Jęczmień palony | 0.25 kg (4%) | 55 % | 985 |
| Sugar | Milk Sugar (Lactose) | 1 kg (16%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Mandarina Bavaria | 15 g | 60 min | 10 % |
| Boil | Mandarina Bavaria | 25 g | 15 min | 10 % |
| Boil | Mandarina Bavaria | 15 g | 5 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale | Slant | 300 ml | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|--------|---------|--------|---------|--------|
| Flavor | Laktoza | 1000 g | Boil | 10 min |