

Na otwarcie MŚ 2018

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **51**
- SRM **6**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **27.6 liter(s)**

Steps

- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **20.7 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 4 kg (58%) | 85 % | 7 |
| Grain | Pilzneński | 1.3 kg (18.8%) | 81 % | 4 |
| Grain | Monachijski | 0.7 kg (10.1%) | 80 % | 16 |
| Grain | Carabelge | 0.5 kg (7.2%) | 80 % | 30 |
| Grain | Oats, Flaked | 0.4 kg (5.8%) | 80 % | 2 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 25 g | 60 min | 14.4 % |
| Boil | Chinook | 15 g | 30 min | 11.1 % |
| Boil | Azacca | 15 g | 15 min | 11.8 % |
| Boil | Amarillo | 15 g | 15 min | 9.3 % |
| Dry Hop | Azacca | 15 g | 8 day(s) | 11.8 % |
| Dry Hop | Lublin (Lubelski) | 25 g | 8 day(s) | 3.8 % |

Yeasts

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

| | | | | |
|----------------------|-----|-------|--------|------------------|
| FM52 Amerykański Sen | Ale | Slant | 100 ml | Fermentum Mobile |
|----------------------|-----|-------|--------|------------------|

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | mech irlandzki | 5 g | Boil | 10 min |