

Harnaś jak Łomża

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **26**
- SRM **5.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **170 liter(s)**
- Trub loss **5 %**
- Size with trub loss **178.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **215.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **115.5 liter(s)**
- Total mash volume **154 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **115.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **138.1 liter(s)** of **76C** water or to achieve **215.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|--------|-----|
| Grain | Strzegom Pilzneński | 10 kg (26%) | 80 % | 4 |
| Grain | Strzegom Monachijski typ II | 10 kg (26%) | 79 % | 22 |
| Grain | Strzegom Pszeniczny | 5 kg (13%) | 81 % | 6 |
| Grain | Viking Pale Ale malt | 5 kg (13%) | 80 % | 5 |
| Grain | BESTMALZ - Best Pilsen | 2 kg (5.2%) | 80.5 % | 4 |
| Grain | Oats, Flaked | 3 kg (7.8%) | 80 % | 2 |
| Grain | Pszenica niesłodowana | 3 kg (7.8%) | 75 % | 3 |
| Grain | Acid Malt | 0.5 kg (1.3%) | 58.7 % | 6 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------|--------|----------|------------|
| Boil | Iunga | 100 g | 60 min | 11 % |
| Boil | Amora Preta | 50 g | 10 min | 11 % |
| Boil | Marynka | 70 g | 60 min | 10 % |
| Dry Hop | Cascade PL | 100 g | 3 day(s) | 5.5 % |
| Dry Hop | Amora Preta | 50 g | 3 day(s) | 11 % |

| | | | | |
|---------|------------|-------|----------|-------|
| Dry Hop | Oktawia | 100 g | 3 day(s) | 7.1 % |
| Dry Hop | Chinook PL | 100 g | 3 day(s) | 9 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |