

Polski Górniak

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **34**
- SRM **4.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **24.8 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **18.6 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **60 min** at **67C**
- Keep mash **0 min** at **78C**
- Sparge using **19.3 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński | 2 kg (32.3%) | 80 % | 4 |
| Grain | Viking Pale Ale malt | 2 kg (32.3%) | 80 % | 5 |
| Grain | Monachijski | 1 kg (16.1%) | 80 % | 16 |
| Grain | Pszeniczny | 0.5 kg (8.1%) | 85 % | 4 |
| Grain | Płatki owsiane | 0.5 kg (8.1%) | 85 % | 3 |
| Grain | Carahell | 0.2 kg (3.2%) | 77 % | 26 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Boil | lunga | 25 g | 60 min | 11 % |
| Aroma (end of boil) | Sybilla | 25 g | 15 min | 3.5 % |
| Whirlpool | Sybilla | 50 g | 30 min | 3.5 % |
| Dry Hop | Sybilla | 25 g | 5 day(s) | 3.5 % |
| Dry Hop | lunga | 25 g | 5 day(s) | 11 % |

Yeasts

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

| | | | | |
|-------------|-----|-----|--------|--------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |
|-------------|-----|-----|--------|--------|

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | mech irlandzki | 5 g | Boil | 15 min |