

Amerykańska sosna

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **32**
- SRM **3.9**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **16 liter(s)** of strike water to **70.9C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------------------|--------------|-------|-----|
| Grain | Strzegom Pilzneński | 3.5 kg (70%) | 80 % | 4 |
| Grain | Słód PSZENICZNY jasny 4,5 EBC Crisp | 1 kg (20%) | 82 % | 5 |
| Grain | Słód MONACHIJSKI typ I 16 EBC Crisp | 0.5 kg (10%) | 82 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------|--------|--------|------------|
| Boil | Simcoe | 15 g | 60 min | 13.2 % |
| Boil | Chinok pl | 15 g | 30 min | 6.6 % |
| Aroma (end of boil) | Simcoe | 15 g | 5 min | 13.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| Us-05 | Ale | Dry | 11 g | --- |

Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

| | | | | |
|--------|---------------|------|------|--------|
| Flavor | pȩdy sosnowe | 75 g | Boil | 20 min |
|--------|---------------|------|------|--------|