

# Leśne Runo

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **12**
- SRM **4.6**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **7 %**
- Size with trub loss **22.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **20 min** at **72C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **27.9 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 4.5 kg (64.3%) | 80 %  | 5   |
| Grain | Pszeniczny           | 1 kg (14.3%)   | 85 %  | 4   |
| Grain | Słód owsiany Fawcett | 0.5 kg (7.1%)  | 61 %  | 5   |
| Grain | Płatki owsiane       | 0.5 kg (7.1%)  | 60 %  | 3   |
| Grain | Płatki pszeniczne    | 0.5 kg (7.1%)  | 60 %  | 3   |

## Hops

| Use for             | Name    | Amount | Time     | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Aroma (end of boil) | Simcoe  | 50 g   | 5 min    | 13.2 %     |
| Whirlpool           | Galaxy  | 25 g   | 0 min    | 15 %       |
| Whirlpool           | Eclipse | 25 g   | 0 min    | 18.4 %     |
| Dry Hop             | Simcoe  | 50 g   | 3 day(s) | 13.2 %     |
| Dry Hop             | Galaxy  | 25 g   | 3 day(s) | 15 %       |
| Dry Hop             | Eclipse | 25 g   | 3 day(s) | 18.4 %     |

## Yeasts

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

|                       |     |       |        |            |
|-----------------------|-----|-------|--------|------------|
| WLP067 - Coastal Haze | Ale | Slant | 500 ml | White Labs |
|-----------------------|-----|-------|--------|------------|

### Extras

| Type | Name         | Amount | Use for | Time  |
|------|--------------|--------|---------|-------|
| Herb | Pędy sosny   | 100 g  | Boil    | 5 min |
| Herb | Pędy świerku | 100 g  | Boil    | 5 min |