

LEM | American India Pale Ale

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **53**
- SRM **7.8**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **7.5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **7.5 %/h**
- Boil size **29.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **1.8 liter(s) / kg**
- Mash size **12.8 liter(s)**
- Total mash volume **19.9 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **75 C**, Time **0 min**

Mash step by step

- Heat up **12.8 liter(s)** of strike water to **80C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **75C**
- Sparge using **24.2 liter(s)** of **76C** water or to achieve **29.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|----------------|----------------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 6.2 kg (83.8%) | 80 % | 5 |
| Grain | Strzegom Wiedeński | 0.5 kg (6.8%) | 79 % | 10 |
| Grain | Słód Caramunich Typ II Weyermann | 0.4 kg (5.4%) | 73 % | 120 |
| Liquid Extract | Ekstrakt słodowy jasny | 0.3 kg (4.1%) | 80 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|-----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 35 g | 60 min | 15.5 % |
| Boil | Cascade | 10 g | 60 min | 6 % |
| Boil | Palisade | 30 g | 5 min | 7.5 % |
| Aroma (end of boil) | Palisade | 10 g | 0 min | 7.5 % |
| Aroma (end of boil) | Cascade | 10 g | 0 min | 6 % |
| Dry Hop | Cascade | 30 g | 10 day(s) | 6 % |
| Dry Hop | Palisade | 10 g | 10 day(s) | 7.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------------------|-------------|-------------|---------------|-------------------|
| Mangrove Jack's M44 US West Coast | Ale | Dry | 10 g | Mangrove Jack's |