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Coconut Shell Powder Using IBM SPSS Statistics

Jayadev

SJB Institute of Technology, Bangalore, Karnataka, India.

Corresponding author Email: devbcv@gmail.com

Abstract: Coconut shell powder. *Introduction:* Coconut shell powder, as the name proposes, is produced using the most natural and adaptable piece of the coconut - the shell. Coconut shell, by and large, is known for its high hardness, magnificent sturdiness, expanded scraped area opposition properties and life span. Aside from the high lignin content and low cellulose content, the compound piece of the shell is to some degree like hardwood. Coconut chip flour is produced using the shells of completely developed nuts, which are first completely cleaned of the nerve sticking to them and broken into little pieces. These pieces are ceaselessly ground in crushing factories and underground, typhoon and vibrating strainers after phosphor-bronze lattice, lastly tossed out in different cross section sizes. *Research significance:* This examination work centers on the utilization of coconut shell powder (CSP) as filler in reused polypropylene (RPP). Sodium dangerous sulfate (SDS) was utilized as a coupling specialist in these blends. The impact of filler content and SDS on malleable properties, warm properties, water assimilation and morphology of RPP/CSP composites was researched. In this review, RPP/CSP composites changed with SDS showed fundamentally expanded elastic properties, warm strength, glasslike, and lower water assimilation contrasted with unmodified RPP/CSP composites. *Methodology:* SPSS insights is an information the board, progressed examination, multivariate investigation, business knowledge, and criminal examination created by IBM for a factual programming bundle. Quite a while, spa inc. was made by, IBM bought it in 2009. The brand name for the latest variants is IBM SPSS insights. *Evaluation parameters:* Percentage composition, Tensile strength, Percentage of elongation, Elastic modulus. *Results:* The Cronbach's Alpha Reliability result. The overall Cronbach's Alpha value for the model is .469 which indicates 46 % reliability. From the literature review, the above 36 % Cronbach's Alpha value model can be considered for analysis. *Conclusion:* the outcome of Cronbach's Alpha Reliability. The model's total Cronbach's Alpha score is .469, which denotes a 46% dependability level. The 36% Cronbach's Alpha value model mentioned above from the literature review may be used for analysis.

Keywords: SPSS Statistics, Tensile strength, Percentage of elongation, Elastic modulus.

1. INTRODUCTION

Attempts to find the use of these materials have habitually achieved low worth or limited applications. In such way, coconut shell powder (CSP) is by all accounts a fascinating applicant because of its compound organization. The inspiration for such a hunt is legitimate mostly from a biological stance. Hence, the application CSP is subsequently an option in contrast to business fillers extraordinary interest. [2] Coconut shell is known as rural bio-squander; In any case, because of its low thickness, minimal expense, natural neighborliness, warm properties, high hardness and high biodegradability, contrasted with glass and carbon, it might be used as a filler to support composite materials. Coconut shell as a filler conveys high strength, modulus, extraordinary getting through resistance and better control limit, stood out from unreinforced composites. [4] A great deal of coconut water, coconut milk, and coconut oil and coconut things are taken care of and finished in Malaysia. Coir is the non-consumable piece of the coconut and is lignocelluloses cultivating composite. Coconut shell powder (CSP) is lignocelluloses filler that shows a couple of preferable properties took a gander at over inorganic filler (e.g., calcium carbonate, kaolin, mica and powder) is insignificant cost, less unpleasant to machine, biodegradable, and eco-obliging. [5] Shell is made predominantly out of lignin and cellulose, with a compound piece basically the same as that of wood. In this work, coconut shell was evaluated as a wellspring of phenol

compounds, as a couple of sorts of trees are used as phenol sources to convey isolates for counterfeit developing of mixed drinks. Coconut powder was submitted to different toasting temperatures and phenol compounds were removed using ultrasound. The ultrasound extraction procedure has been concentrated as a negligible cost choice as opposed to dissolvable reflux extraction. [6] Use of regular sinewy polymer composites loaded up with normal natural fillers as a substitute for mineral Coir strands are ways for the scholarly community and ventures to plan a manageable module for sometime later. Coir strands are generally utilized in composite businesses financial strengthening of individuals. [7] Coconut shell, a plentiful horticultural composite in Malaysia, is one of the lignocelluloses fillers, being the fourth most significant harvest regarding sections of land after coconut (*Cocos nucifera*), oil palm, elastic and rice. Lignocelluloses filler shows a few phenomenal properties contrasted with mineral filler (for example calcium carbonate, kaolin, mica and powder), minimal expense, inexhaustible, and low abrasiveness. For the machine, obviously biodegradability and eco-amicability. [8] For quite a while, coconut shells had practically zero financial worth, and their removal was costly as well as created ecological issues. Be that as it may, these days, coconut utilized as enacted carbon, mosquito curls, and lignocelluloses filler in polymer composites. [9] Coconut shell horticultural co-items are plentiful and accessible for minimal price. By and large, coconut shell is utilized to create initiated carbon, mosquito curl and charcoal. Coconut shell is effortlessly handled into powder structure and is known as coconut shell powder (CSP). [10] These days, the utilization of coir squander is restricted to agribusiness and a few ventures that utilization coir. The utilization of coconut shell as a wellspring of synthetic mixtures, fundamentally to deliver phenol compounds, is new. The utilization of ultrasound extraction rather than the customary Shoaled strategy is expanding and its application has been investigated in the drug, synthetic and food industries.[11] Photograph reactant corruption proficiency of TiO₂-coconut shells Tri-Medication Evacuation Powder (TCNSP) Combination and individual consideration items (PPCPs) were investigated in this review. The photosynthetic response pace of PPCPs diminished with expanding beginning grouping of PPCPs, yet expanded with expanding light force, TCNSP focus and broke down oxygen fixation.[12] Amassing of metals on the terminal surface Electrostatic fascination between is viewed as significant Different utilitarian gatherings in coconut shell powder Anode real life restricting. The limiting was concentrated on utilizing metal particles on the anode surface FTIR. [13] Normal strands are less expensive and lighter however have less positive mechanical properties comparative with manufactured filaments. Subsequently, rather than utilizing just regular strands, a cross breed composite is a practical and less expensive other option. A few specialists have changed regular strands as fillers with different natural and inorganic materials to work on the mechanical. [14] The principal objective of the work was to assess the likely properties of jute strands when hybridized with To accomplish this objective, half breed epoxy composites in view of coconut shell powder and jute fiber were arranged utilizing a straightforward handle strategy. In the NaOH arrangement, normal strands, for example, coconut shell powder and hemp filaments were blessed to receive reinforce their grip and decrease dampness retention. The composites were then treated with fluid nitrogen at different temperature ranges and their mechanical properties.[15] Coconut shells are produced using mature blurred Powder Then, at that point, Took care of in do Into Vibrating Sewing Machine is required Size reasonable for network size.CSPis150-180 mm. Coconut shell powder is primarily utilized as filler in industry. [16] As a component of our continuous exploration focused on the planning and assessment wet capacity, MVDR, wet capacity. examination; Against dissolvability in water, 5% acidic corrosive, half ethanol, sunflower oil; and expanding properties in half ethanol, sunflower oil. [17] As referenced above, coconut shell powder has extraordinary potential for creation. As far as anyone is concerned, no concentrate on the molecule size impact of the substance has been found in the writing up until this point Property of coconut shell powder. Corresponding to that issue, we have concentrated on the impact of ball processing time on the synthetic properties of coconut shell powder. The outcomes are accounted for in this paper.[18] In this way, it is extremely fascinating to concentrate on the impact of ball processing time combination. As referenced above, coconut shell powder has incredible potential for structure. As far as anyone is concerned, no review has yet been found in the writing on the molecule size impact of the compound property of coconut shell powder. According to that issue, we have concentrated on the impact of ball processing time on the synthetic properties of coconut shell powder. The outcomes are accounted for in this paper.[19] The third strategy depends on an aqueous treatment called steam blast, which is equipped for extending the lignocelluloses construction of coconut husk powder without the lignin extraction stage, in this way working on the open design. The correlation of the treatment impact in view of communications with Cu⁺² and Cd⁺² particles depends on the accompanying boundaries: physicochemical person of waste in regular and enacted structure, impact of beginning metal fixation in arrangement, pH, dynamic review, isothermal models, thermodynamics and adsorption-desorption cycles. [22] Which prompts a splendid potential for its utilization as a substitute for total cement in concrete? Utilizing coconut shell powder can make harmless to the ecosystem compounds, particularly in submerged pipelines where its applications can hurt marine life. A lightweight composite can likewise be created, as well as expanding the market worth of byproducts Coconut shell [24] notwithstanding, another coconut-based substance broadly considered is coconut shell powder (CSP). The greater part of the investigations referenced above saw that both the pliable and flexural a few as of late distributed provides details regarding crossover PMCs utilizing CSP and other regular materials including coconut fiber. [26] Among every regular fiber, coir fiber and coconut husk powder have all the earmarks of being the most encouraging accessible, modest, and profoundly effective perpetual harvest because of its overflow. Areca fiber is produced using Areca catechu L. Having a place with the sort; it goes under the Palmaceae family and began in the Malayan Landmass of East India. The main five coconut delivering nations are Philippines, Indonesia, India, Sri Lanka and Brazil. [27]

Accordingly, plastics containing regular fillers, for example, coconut shell (CCS) powder are of interest since it is a plentiful, unobtrusive, and reasonable resource. CCS powder is delivered utilizing the adaptable piece of coconuts, which is regularly present in nature. Shell is near in compound game plan to hardwood, though the lignin content is higher than the cellulose content. [28]

2. MATERIALS & METHODS

Evaluation parameters: Percentage composition, Tensile strength, Percentage of elongation, Elastic modulus.

Percentage composition: utilization is expressed, adding additional protein or fat to a proportion doesn't permit us to decide if the adjustment of everyday sum and rate synthesis of milk is because of protein or fat or an expansion in it. Calorific worth of apportion. This idea is by all accounts neglected to focus on now and again. A careful investigation of the impact on the rate creation of milk of taking care of an overabundance of one of the energy-yielding parts of the eating routine was that of Void (I), who worked with a squeezing.

Tensile strength: The DISL approach is a strategy for deciding pinnacle and vortex disappointment envelopes to catch the flexible way of behaving of rocks encompassing underground unearthing. UCS and CI qualities are generally accessible or estimated; be that as it may, elasticity is frequently neglected. The connection between rigidity, CI and removal harm will be additionally examined.

Percentage of elongation: Regardless of whether it is down to earth, the qualities currently typically displayed as rate lengthening are of sketchy worth as a proportion of malleability. It is important to express this point plainly, as it contrasts from the ordinary view. Expecting that two straight lines address the logarithm, for the steady area, when some solidifying interaction or under broadly various paces of Perceive how various outcomes can be accomplished with no trouble, in any event, for stacking or two unique materials.

Elastic modulus: The trial assurance of versatile module of glasslike parts of polyethylene, polyvinyl liquor, polyvinylidene chloride, polypropylene, polyoxymethylene and cellulose is portrayed in this report. Cross section extending was estimated by X-beam diffraction under a const Stress, so unwinding makes no difference. The estimation of versatile modulus depends with the understanding of persistent model.

Methods: IBM SPSS Bits of knowledge is serious areas of strength for a programming stage. It offers a straightforward connection point and a strong game plan of components that grant your relationship to separate significant experiences from your information rapidly. High level measurable techniques assist with guaranteeing high precision and quality navigation. All parts of the investigation lifecycle are incorporated, from information planning and the board to examination and announcing. The IBM SPSS programming stage offers advanced genuine examination, a wide library of simulated intelligence estimations, text assessment, open source extensibility, compromise with enormous data, and steady association across applications. Its accommodation, flexibility, and adaptability make SPSS accessible to clients of all ability levels. Likewise, it is sensible for exercises of all sizes and levels of multifaceted nature, and can help with perceiving new entryways, further foster efficiency and diminishing gamble. In the SPSS programming gathering of things, IBM SPSS Estimations maintains a progressive, hypothesis testing method for managing your data, while IBM SPSS Modeler uncovers stowed away endlessly designs in data through a base up, theory creating approach.

RESULT AND DISCUSSION

TABLE 1. Reliability Statistics

| Reliability Statistics | | |
|-------------------------------|---|------------|
| Cronbach's Alpha ^a | Cronbach's Alpha Based on Standardized Items ^a | N of Items |
| .469 | .397 | 4 |

Table 1 shows Cronbach's Alpha Reliability result. The overall Cronbach's Alpha value for the model is .469 which indicates 46% reliability. From the literature review, the above 39% Cronbach's Alpha value model can be considered for analysis.

TABLE 2. Reliability Statistic individual

| | Cronbach's Alpha if Item Deleted |
|--------------------------|----------------------------------|
| percentage composition | 0.165 |
| Tensile strength | 0.065 |
| percentage of elongation | 0.568 |
| Elastic modulus | 0.064 |

Table 2 Shows the Reliability Statistic individual parameter Cronbach's Alpha Reliability results in Percentage composition 0.165, Tensile strength 0.065, Percentage of elongation 0.568, and Elastic modulus 0.064.

TABLE 3. Descriptive Statistics

| Descriptive Statistics | | | | | | | | | | |
|--------------------------|----|-------|---------|---------|-----|------|----------------|----------|----------|----------|
| | N | Range | Minimum | Maximum | Sum | Mean | Std. Deviation | Variance | Skewness | Kurtosis |
| Percentage composition | 36 | 3 | 2 | 5 | 111 | 3.08 | 1.131 | 1.279 | 0.456 | -1.286 |
| Tensile strength | 36 | 4 | 1 | 5 | 108 | 3 | 1.219 | 1.486 | 0.2 | -1.001 |
| Percentage of elongation | 36 | 4 | 1 | 5 | 101 | 2.81 | 1.348 | 1.818 | 0.079 | -1.229 |
| Elastic modulus | 36 | 4 | 1 | 5 | 115 | 3.19 | 1.39 | 1.933 | -0.166 | -1.05 |
| Valid N (listwise) | 36 | | | | | | | | | |

Table 3 shows the descriptive statistics values for analysis N, range, minimum, maximum, mean, standard deviation, Variance, Skewness, and Kurtosis. Percentage composition, Tensile strength, Percentage of elongation, Elastic modulus this also using.

TABLE 4. Frequency Statistics

| Statistics | | | | | |
|------------------------|---------|------------------------|------------------|--------------------------|-----------------|
| | | Percentage composition | Tensile strength | Percentage of elongation | Elastic modulus |
| N | Valid | 36 | 36 | 36 | 36 |
| | Missing | 0 | 0 | 0 | 0 |
| Mean | | 3.08 | 3 | 2.81 | 3.19 |
| Std. Error of Mean | | 0.188 | 0.203 | 0.225 | 0.232 |
| Median | | 3 | 3 | 3 | 3 |
| Mode | | 2 | 2 | 4 | 3 |
| Std. Deviation | | 1.131 | 1.219 | 1.348 | 1.39 |
| Variance | | 1.279 | 1.486 | 1.818 | 1.933 |
| Skewness | | 0.456 | 0.2 | 0.079 | -0.166 |
| Std. Error of Skewness | | 0.393 | 0.393 | 0.393 | 0.393 |
| Kurtosis | | -1.286 | -1.001 | -1.229 | -1.05 |
| Std. Error of Kurtosis | | 0.768 | 0.768 | 0.768 | 0.768 |
| Range | | 3 | 4 | 4 | 4 |
| Minimum | | 2 | 1 | 1 | 1 |
| Maximum | | 5 | 5 | 5 | 5 |
| Sum | | 111 | 108 | 101 | 115 |

Table 4 shows the Frequency Statistics in Solar photovoltaic technology is Dye-Sensitized Solar Panels, Perovskite Solar, Quantum Dot, and Organic Photovoltaics curve values are given. Valid 36, Missing value 0, Median value 3.00, Mode value 2.

Histogram Plot:

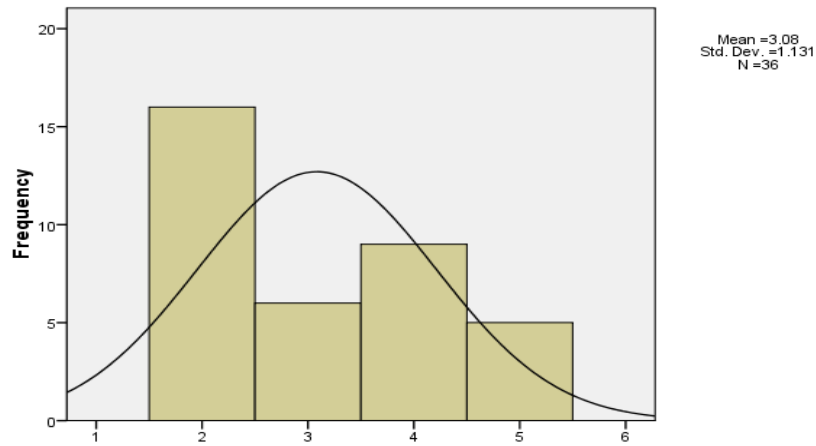


FIGURE 1. Percentage Composition

Figure 1 shows the histogram plot for Percentage composition from the figure it is clearly seen that the data are slightly Left skewed due to more respondents choosing 2 for Percentage composition except for the 2 values all other values are under the normal curve shows model is significantly following a normal distribution.

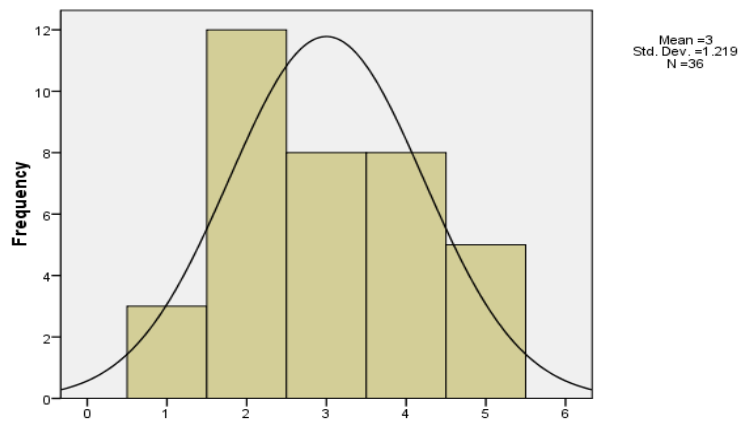


FIGURE 2. Tensile strength

Figure 2 shows the histogram plot for Tensile strength from the figure it is clearly seen that the data are slightly Left skewed due to more respondents choosing 2 for Tensile strength except for the 2 values all other values are under the normal curve shows the model is significantly following a normal distribution.

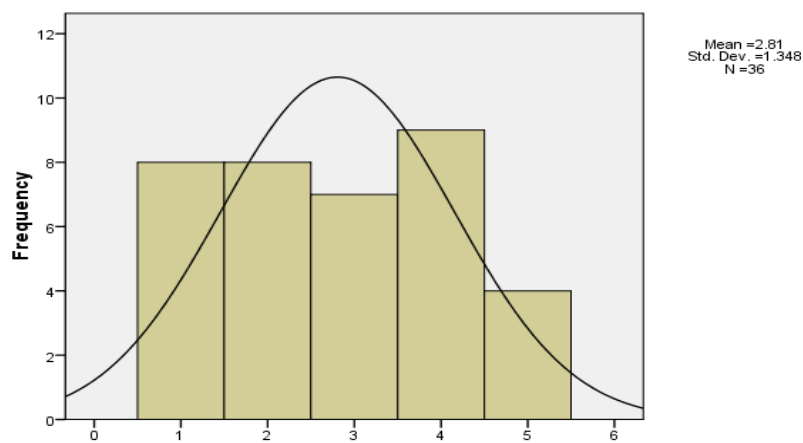


FIGURE 3. Percentage of elongation

Figure 3 shows the histogram plot for Percentage of elongation from the figure it is clearly seen that the data are slightly Left skewed due to more respondents choosing 4 for Percentage of elongation except for the 4 value all other values are under the normal curve shows the model is significantly following a normal distribution.

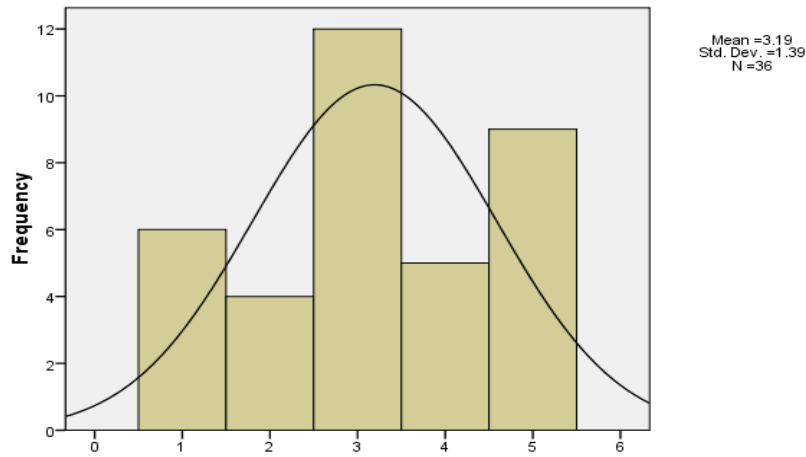


FIGURE 4. Elastic modulus

Figure 4 shows the histogram plot for Elastic modulus from the figure it is clearly seen that the data are slightly Left skewed due to more respondents choosing 3 for Elastic modulus except for the 2 values all other values are under the normal curve shows the model is significantly following a normal distribution.

TABLE 5. Correlations

| Correlations | | | | |
|--------------------------|------------------------|------------------|--------------------------|-----------------|
| | Percentage composition | Tensile strength | Percentage of elongation | Elastic modulus |
| Percentage composition | 1 | 0.062 | -0.027 | -.338* |
| Tensile strength | 0.062 | 1 | 0.035 | -0.118 |
| Percentage of elongation | -0.027 | 0.035 | 1 | 0.249 |
| Elastic modulus | -.338* | -0.118 | 0.249 | 1 |

Table 5 shows the correlation between motivation parameters for Percentage composition for Elastic modulus is having the highest correlation with Percentage of elongation is having lowest correlation. Next, the correlation between motivation parameters for Tensile strength for Elastic modulus is having the highest correlation with Percentage of elongation having the lowest correlation. Next, the correlation between motivation parameters for Percentage of elongation for Organic Elastic modulus is having the highest correlation with Percentage composition having the lowest correlation. Next, the correlation between motivation parameters for Elastic modulus for Percentage composition is having the highest correlation with Tensile strength having the lowest correlation.

Conclusion

Among every regular fiber, coir fiber and coconut husk powder have all the earmarks of being the most encouraging accessible, modest, and profoundly effective perpetual harvest because of its overflow. Areca fiber is produced using Areca catechu L. Having a place with the sort; it goes under the Palmaceae family and began in the Malayan Landmass of East India. The main five coconut delivering nations are Philippines, Indonesia, India, Sri Lanka and Brazil. As referenced above, coconut shell powder has extraordinary potential for creation. As far as anyone is concerned, no concentrate on the molecule size impact of the substance has been found in the writing up until this point Property of coconut shell powder. Corresponding to that issue, we have concentrated on the impact of ball processing time on the synthetic properties of coconut shell powder. The outcomes are accounted for in this paper. Photograph reactant corruption proficiency of TiO₂-coconut shells Tri-Medication Evacuation Powder (TCNSP) Combination and individual consideration items (PPCPs) were investigated in this review. The photosynthetic response pace of PPCPs diminished with expanding beginning grouping of PPCPs, yet expanded with expanding light force, TCNSP focus and broke down oxygen fixation Regardless of whether it is down to earth, the qualities currently typically displayed as rate lengthening are of sketchy worth as a proportion of malleability. It is important to express this point plainly, as it contrasts from the ordinary view. Expecting that two straight lines address the logarithm, for the steady area, when some solidifying interaction or under broadly various paces of Perceive how various outcomes can be accomplished with no trouble, in

any event, for stacking or two unique materials. The Cronbach's Alpha Reliability result. The overall Cronbach's Alpha value for the model is .469 which indicates 46 % reliability. From the literature review, the above 36 % Cronbach's Alpha value model can be considered for analysis.

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