VPAT Accessibility Conformance Report

(Based on ITI VPAT©)

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| **Name of Product** | **Knovel** |
| **Date Last Updated** | **September 29, 2023** |
| Completed by | Jay Nemchik (Digital Accessibility Team) |
| **Applicable Standards/Guidelines** | This document rates Knovel according to the W3C WCAG 2.1 A and AA requirements. |
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| **Testing Tools and Methods** | **Hands-on keyboard operation Firebug/Code inspection Firefox Web Developer Toolbar (removing style sheets) JAWS 18 on Mozilla Firefox 63 and MS IE 11 on Windows 10 NVDA screen reader v2019.2.1 Wave Extension**  **Color Contrast Analyzer W3C WAI Pages** Elsevier Accessibility Checklist: <http://romeo.elsevier.com/accessibility_checklist/> |
| **Document Sections** | The review document below includes all WCAG 2.1 A and AA checkpoints and is organized into 6 logical sections:   * Visuals * Keyboard * Headings and Structure * Labeling * Multimedia * Usability |
| **Pages Covered** | **Header, Footer, Login, Navigation, Homepage, Search Results, Browse, Material Property Search, Unit Converter, Table of Contents, PDF Viewer, Table Viewer** |
| **Terms** | * **Supports: The functionality of the product has at least one method that meets the criteria without known defects or meets with equivalent facilitation.** * **Partially supports: Some functionality of the product does not meet the criteria.** * **Does not support: Majority of functionality of the product does not meet the criteria.** * **Supports (N/A): According to W3C on conformance, "If there is no content to which a success criterion applies, the success criterion is satisfied."** |
| **Notes/Terminology** | **“AT” stands for Assistive Technology such as screen readers, voice input, etc.** |

| **WCAG 2.1 Success Criterion** | **Level** | **Evaluation** |
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| 1.1.1: Non-text Content | A | Partially supports |
| 1.2.1: Audio-only and Video-only (Prerecorded) | A | Supports (N/A) |
| 1.2.2: Captions (Prerecorded) | A | Supports (N/A) |
| 1.2.3: Audio Description or Full Text Alternative | A | Supports (N/A) |
| 1.2.4: Captions (Live) | AA | Supports (N/A) |
| 1.2.5: Audio Description | AA | Supports (N/A) |
| 1.3.1: Info and Relationships | A | Partially supports |
| 1.3.2: Meaningful Sequence | A | Partially supports |
| 1.3.3: Sensory Characteristics | A | Supports |
| 1.3.4: Orientation (2.1) | AA | Supports |
| 1.3.5: Identify Input Purpose (2.1) | AA | Supports (N/A) |
| 1.4.1: Use of Color | A | Supports |
| 1.4.2: Audio Control | A | Supports (N/A) |
| 1.4.3: Contrast (Minimum) | AA | Partially supports |
| 1.4.4: Resize text | AA | Partially supports |
| 1.4.5: Images of Text | AA | Supports |
| 1.4.10: Reflow (2.1) | AA | Partially supports |
| 1.4.11: Non-Text Contrast (2.1) | AA | Partially supports |
| 1.4.12: Text Spacing (2.1) | AA | Supports |
| 1.4.13: Content on Hover or Focus (2.1) | AA | Partially supports |
| 2.1.1: Keyboard | A | Partially supports |
| 2.1.2: No Keyboard Trap | A | Supports |
| 2.1.4: Character Key Shortcuts (2.1) | A | Does not support |
| 2.2.1: Timing Adjustable | A | Supports (N/A) |
| 2.2.2: Pause, Stop, Hide | A | Partially supports |
| 2.3.1: Three Flashes or Below Threshold | A | Supports (N/A) |
| 2.4.1: Bypass Blocks | A | Partially supports |
| 2.4.2: Page Titled | A | Supports |
| 2.4.3: Focus Order | A | Partially supports |
| 2.4.4: Link Purpose (In Context) | A | Partially supports |
| 2.4.5: Multiple Ways | AA | Supports |
| 2.4.6: Headings and Labels | AA | Supports |
| 2.4.7: Focus Visible | AA | Partially supports |
| 2.5.1: Pointer Gestures (2.1) | A | Supports (N/A) |
| 2.5.2: Pointer Cancellation (2.1) | A | Supports (N/A) |
| 2.5.3: Label in Name (2.1) | A | Partially supports |
| 2.5.4: Motion Actuation (2.1) | A | Supports (N/A) |
| 3.1.1: Language of Page | A | Supports |
| 3.1.2: Language of Parts | AA | Supports |
| 3.2.1: On Focus | A | Partially supports |
| 3.2.2: On Input | A | Supports |
| 3.2.3: Consistent Navigation | AA | Supports |
| 3.2.4: Consistent Identification | AA | Supports |
| 3.3.1: Error Identification | A | Partially supports |
| 3.3.2: Labels or Instructions | A | Partially supports |
| 3.3.3: Error Suggestion | AA | Supports |
| 3.3.4: Error Prevention (Legal, Financial, Data) | AA | Supports |
| 4.1.1: Parsing | A | Supports |
| 4.1.2: Name, Role, Value | A | Does not support |
| 4.1.3: Status Messages (2.1) | AA | Does not support |

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| **Visuals** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [1.1.1: Non-Text Content](http://www.w3.org/TR/WCAG20/#text-equiv-all) (A) Provide text alternatives for non-text content (e.g. images) | Partially supports | Many images and icons include text equivalents.  **Exceptions:**  Navigation: Logos such as the Knovel Data Analytics image need proper alt text.  Homepage: Several decorative images are given unnecessary alt text. Knovel Data Analytics logo needs proper alt text.  Browse: The featured mobile app images either have missing or incorrect alt text. The individual book covers need appropriate alt text.  Search Results: The Equation images do not have any alt text. Book covers need proper alt text.  Table of Contents: The icons depicting what category each item within the table of contents is need alternative text. In the "New In…" section, the individual book covers and "new" images do not have any alt text.  Unit Converter: The input unit keyboards do not have any alt text.  Note: PDF Viewer has a Screen Reader view that turns the PDF images into proper HTML content. |
| [1.3.3: Sensory Characteristics](http://www.w3.org/TR/WCAG20/#content-structure-separation-understanding) (A) Do not rely on sensory characteristics of components such as shape, size, visual location, orientation, or sound | Supports | Content does not rely on sensory characteristics for all content. |
| [1.4.1: Use of Color](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-without-color) (A) Color is not used as the only visual means of conveying info | Supports | Color is not used as the only means of conveying information. |
| [1.4.3: Color Contrast (Minimum)](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-contrast) (AA) Text has enough contrast with the background (4.5:1 for small text and 3:1 for large text) | Partially supports | Most text has enough contrast with its corresponding background.  **Exceptions:**  Navigation: The white on orange text for the current page does not have enough contrast.  Homepage: The orange "Search Knovel" text does not have enough contrast. The white on orange "New" does not have enough contrast. The "1h" text in the newsfeed does not have enough contrast. Concept Synonyms tooltip text does not have enough contrast.  Browse: The current subject area orange text on light gray background does not have enough contrast. The current tab (Technical References, New Content) and current button (All Content, My Subscription) do not have enough contrast.  Search Results: The Clear All number filter white text on orange does not have enough contrast. Tooltip popups do not have enough contrast.  Material Property Search: The Drag and Drop gray text on white background does not have enough contrast.  Table of Contents: "New in…" orange text does not have enough contrast.  PDF Viewer: The white on orange text, such as "Save to my Knovel", does not have enough contrast. |
| [1.4.4: Resize Text](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-scale) (AA)  Text can be enlarged up to 200% without loss of functionality. | Partially supports | Text can be enlarged to 200% and most content remains functional.  **Exceptions:**  Navigation: A couple of the panels can become cut-off at 200% magnification and cannot be accessed with a mouse. |
| [1.4.5: Images of Text](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-text-presentation) (AA) Text is used rather than images of text, except where the presentation of text is essential, such as logos | Supports | No images of text are used other than for Logos or essential presentation. |
| [1.4.10 Reflow](https://www.w3.org/TR/WCAG21/#reflow) (AA) Content can be presented without loss of information or functionality, and without requiring scrolling in two dimensions for:  Vertical scrolling content at a width equivalent to 320 CSS pixels;  Horizontal scrolling content at a height equivalent to 256 CSS pixels. | Partially supports | Knovel uses a responsive view that properly scrolls in only one direction once width reaches low CSS pixels on nearly all pages.  **Exceptions:**  PDF Viewer: There is no responsive view for the PDF viewer, requiring scrolling in two directions. |
| [1.4.11 Non-Text Contrast (AA](https://www.w3.org/TR/WCAG21/#non-text-contrast)) User interact components and graphical objects have a contrast ratio of at least 3:1 against adjacent color(s). | Partially supports | Most non-text UI components and graphical objects have at least a 3:1 contrast ratio.  **Exceptions:** Navigation: The Unit Converter arrow button does not have enough contrast at 1.98:1.  Homepage: The grey 'X' close button on light blue does not have enough contrast at 1.62:1.  Table Viewer: The checkboxes on the left of the table viewer do not have enough contrast at 1.98:1. |
| [1.4.12 Text Spacing (AA)](https://www.w3.org/TR/WCAG21/#text-spacing)  In content implemented using markup languages that support the following text style properties, no loss of content or functionality occurs by setting all the following and by changing no other style property:  Line height (line spacing) to at least 1.5 times the font size;  Spacing following paragraphs to at least 2 times the font size;  Letter spacing (tracking) to at least 0.12 times the font size;  Word spacing to at least 0.16 times the font size. | Supports | The site allows users to adjust the text spacing without causing loss of content or functionality. |
| [1.4.13 Content on Hover or Focus (AA)](https://www.w3.org/TR/WCAG21/#content-on-hover-or-focus)  Where receiving and then removing pointer hover or keyboard focus triggers additional content to become visible and then hidden, the following are true:   * Dismissable * Hoverable * Persistent | Partially supports | There is no content that appears on hover or focus on most pages.  **Exceptions:**  Navigation: The tooltips that appear for navigation options (e.g Property Search, My Knovel, etc.) are not dismissable or hoverable.  Homepage: Concept Synonyms tooltip is not hoverable.  Search Results: The help tooltips are not hoverable.  Unit Converter: The help tooltips are not hoverable or dismissable.  PDF Viewer: The keyboard shortcuts popup is not dismissable or hoverable. |
| [2.3.1: Three Flashes or Below Threshold](http://www.w3.org/TR/WCAG20/#seizure-does-not-violate) (A) No more than three flashes in a 1-second period, or the flashes are below the defined thresholds | Supports (N/A) | No flashing content exists. |
| **Keyboard** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [1.3.2: Meaningful Sequence](http://www.w3.org/TR/WCAG20/#content-structure-separation-sequence) (A)  The correct reading sequence can be programmatically determined | Partially supports | The correct reading sequence is logical with the DOM order matching the visual order in most areas.    **Exceptions:**  Header: The profile dropdown's contents should not be reachable with a screen reader when the content is collapsed.  Search Results: Dropdown contents, such as the Sort by dropdown, should not be reachable with a screen reader when the content is collapsed.  Browse: The hidden subject contents under Technical References should not be reachable with a screen reader.  Material Property Search: Dropdown contents, such as a property operator dropdown, should not be reachable with a screen reader when the content is collapsed.  PDF Viewer: The table of contents should appear after the toolbar in the DOM.  Table Viewer: The table of contents should appear after the toolbar in the DOM. |
| [2.1.1: Keyboard](http://www.w3.org/TR/WCAG20/#keyboard-operation-keyboard-operable) (A)  All functionality is available from a keyboard, except for tasks such as drawing | Partially supports | Most content is keyboard operable.  **Exceptions**:  Homepage: The concept synonyms info tooltip cannot be shown by keyboard.  Search Results: Dropdown contents should be navigable by arrow keys. The pagination links cannot be reached by keyboard.  Browse: The All Content and My Subscription links cannot be reached by keyboard.  Table of Contents: The button to view tables cannot be reached by keyboard.  PDF Viewer: The Add Note button cannot be reached by keyboard. Keyboard users cannot add notes, as it requires clicking a mouse. Users can reach, but not activate the Keyboard shortcuts button. Users cannot reach the links or thumbnails within the Table of Contents.  Material Property Search: Users cannot reach the properties in the chemical properties tree.  Unit Converter: The My Settings and Info links cannot be reached by keyboard. The options within the Gauge Conversions dropdown cannot be reached by keyboard. Users cannot change the significant digits input with the keyboard. The input keyboard icons cannot be reached by keyboard. All of the unit input table's content cannot be reached by keyboard. The various Unit buttons (Select Input Unit, New Unit, etc.) cannot be reached by keyboard. The help text next to each text input cannot be read by those using keyboards only. |
| [2.1.2: No Keyboard Trap](http://www.w3.org/TR/WCAG20/#keyboard-operation-trapping) (A)  The user can use the keyboard to move through page elements and is not trapped on a particular element | Supports | There are no keyboard traps on Knovel. |
| [2.1.4 Character Key Shortcuts (A)](https://www.w3.org/TR/WCAG21/#character-key-shortcuts)  If a keyboard shortcut is implemented in content using only letter (including upper- and lower-case letters), punctuation, number, or symbol characters, then at least one of the following is true:   * Turn off * Remap * Active only on focus | Does not support | There are no keyboard shortcuts on most pages on Knovel.  **Exceptions:**  The PDF Viewer has some single character key shortcuts that cannot be turned off or remapped. |
| [2.4.3: Focus Order](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-focus-order) (A)  Users can tab through the elements of a page in a logical order | Partially supports | Tab order is logical on the site for the most part.  **Exceptions**:  Closing dialog boxes should return keyboard focus to the element that activated the dialog.  Navigation: The Unit Converter dropdowns' contents can all be reached even when the dropdowns are collapsed.  Header: The profile dropdown's contents can be reached even when the menu is collapsed.  Homepage: There are many non-interactive elements that have been given tabindexes.  Browse: The hidden subject links under Technical References should not be reachable by keyboard when they are hidden.  Search Results: The Save To My Knovel dialog does not trap or manage focus properly. Share search query modal does not trap or manage focus properly. Dropdown contents on the page should not be reachable by keyboard when the content is collapsed. Many search results "See Inside" content have two interactive links that both lead to the same page. There are many elements that are given unnecessary tabindexes.  Table of Contents: Each of the table of contents links has two interactive links that both lead to the same page.  PDF Viewer: The table of contents should appear after the toolbar in the DOM and tabbing order.  Table Viewer: All of the checkboxes have an unnecessary tab stop. The table of contents should appear after the toolbar in the DOM and tabbing order. The table header buttons should be reached before the checkboxes in the table.  Material Property Search: The share modal does not manage or trap focus properly. Many interactive elements have two tab-stops. Dropdown contents, such as a property operator dropdown, should not be reachable by keyboard when the content is collapsed. |
| [2.4.7: Focus Visible](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-focus-visible) (AA)  The page element with the current keyboard focus has a visible focus indicator | Partially supports | Most elements use a custom visible focus. The custom focus uses a CSS border, instead of an outline, which causes some graphical issues at times.  **Exceptions:**  Browse: The "Current" selected tab (Technical References or New Content, All Content or My Subscription) needs a visible focus.  PDF Viewer: The "Current" selected table of contents' tab (List View or Thumbnail View) needs a visible focus. The Page arrows and Keyboard shortcuts buttons need a visible focus.  Unit Converter: The Knovel Unit Converter text does not receive a visible focus. The down arrow for opening the Gauge Conversion does not have a visible focus. All of the buttons in the actual Unit Converter do not receive a visible focus. |
| [3.2.1: On Focus](http://www.w3.org/TR/WCAG20/#consistent-behavior-receive-focus) (A)  When a UI component receives focus, this does not trigger unexpected actions. | Partially supports | Most focusable elements do not cause unexpected actions when receiving focus.  **Exceptions:** Table of Contents: The Journals, Conferences, and Standards tabs change automatically when the tab focus changes. |
| **Headers and Structure** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [1.3.1: Information and Relationships](http://www.w3.org/TR/WCAG20/#content-structure-separation-programmatic) (A)  Info, structure, and relationships can be programmatically determined | Partially supports | There are headings used on some pages. Landmarks are used sparingly.  **Exceptions:**  Homepage: The page has no headings. Text such as Recent Activity, Explore Metallic Materials, and Solve Equations should be headings (h2 in this case).  Browse: The content underneath each section should be in a single unordered list. Under "New Content", Subject Area, and Technical References should be h2s.  Search Results: The page needs an h1. A heading should be before the search results content. Each search result title should be a heading.  Table of Contents: There should be a heading with actual text before the actual table of contents. "New In…" text should be a heading.  PDF Viewer: The page needs an h1. The screen reader version of the PDF content needs proper semantics.  Table Viewer: The checkboxes should not in a separate table element.  Unit Converter: Tables should not be used to structure content. |
| [2.4.1: Bypass Blocks](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-skip) (A)  Users can bypass repeated blocks of content. | Partially supports | A skip to main content link exists on all pages. Only a few headings or landmarks exist, so screen reader users could struggle to skip past blocks of content.  **Exceptions:**  The skip to main content link only works on the homepage. |
| [2.4.6: Headings and Labels](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-descriptive) (AA)  Headings and labels are clear and consistent. | Supports | The headings that are used on the site and clear and consistent. |
| [3.1.1: Language of Page](http://www.w3.org/TR/WCAG20/#meaning-doc-lang-id) (A)  The language of the page is specified | Supports | The language is defined as lang="en" on all pages. |
| [3.1.2: Language of Parts](http://www.w3.org/TR/WCAG20/#meaning-other-lang-id) (AA)  Specify the language of text passages that are in a different language than the default language of the page. | Supports | None of the site-wide UI or functionality uses a different language than the default. |
| [4.1.1: Parsing](http://www.w3.org/TR/WCAG20/#ensure-compat-parses) (A)  Use valid, error-free HTML | Supports | HTML and CSS passes concerning these 4 specific criteria:  (i) elements have complete start and end tags,  (ii) elements are nested according to their specifications  (iii) elements do not contain duplicate attributes (iv) any IDs are unique, except where the specifications allow these features. |
| **Labeling** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [1.3.5 Identify Input Purpose (AA)](https://www.w3.org/TR/WCAG21/#identify-input-purpose) The purpose of each input field collecting information about the user can be programmatically determined when:  The input field serves a purpose identified in the Input Purposes for User Interface Components section; and the content is implemented using technologies with support for identifying the expected meaning for form input data. | Supports (N/A) | No evaluated pages on Knovel use personal input fields. |
| [2.4.2: Page Titled](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-title) (A)  The page has a title describing its topic or purpose | Supports | The title changes accordingly for each page and is typically descriptive. |
| [2.4.4: Link Purpose (In Context)](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-refs) (A)  The purpose of each link can be determined from the link text or surrounding context. | Partially supports | Most links used have an identifiable purpose from the link text or surrounding context.  **Exceptions:**  Homepage: External links do not indicate that they open in new windows/tabs. |
| [2.5.3 Label in Name](https://www.w3.org/TR/WCAG21/#label-in-name) (A)  For user interface components with labels that include text or images of text, the name contains the text that is presented visually. | Partially supports | User interface components that have visible text contain that text consistently within the accessible name.  **Exceptions:**  Footer: The RELX Group link needs "RELX Group" in the accessible name. |
| [3.2.4: Consistent Identification](http://www.w3.org/TR/WCAG20/#consistent-behavior-consistent-functionality) (AA)  UI components used across the web site are identified consistently on every page. | Supports | Most UI components are consistent across the site. |
| [3.3.1: Error Identification](http://www.w3.org/TR/WCAG20/#minimize-error-identified) (A)  Input errors are clearly marked and described to the user. | Partially supports | Errors are given but need work in order to announce them to screen readers.  **Exceptions:**  Login: There is visible text denoting input errors, but they are not programmatically linked to their input fields.  Material Property Search: Input errors are only marked in red and do not communicate themselves programmatically. |
| [3.3.2: Labels and Instructions](http://www.w3.org/TR/WCAG20/#minimize-error-cues) (A)  Items requiring user input are clearly labeled or have clear instructions. | Partially supports | Most input areas use titles or placeholder attributes but are missing true labels.  **Exceptions:**  Login: The Email Address and Password forms do not have labels. The Search for Institution input is not labelled and does not announce that there are search suggestions.  Navigation: The labels for the unit inputs for Unit Conversion are missing. The button dropdown needs a label to describe what the user is selecting.  Header: The search input's aria-label needs a clearer label.  Homepage: The search input should let the user know there are suggested search options, and how to peruse them.  Browse: Topic Quickfinder input needs a true label, a placeholder attribute alone is not sufficient.  Search Results: The text inputs in the Share Search Query modal do not have labels.  Table of Contents: After performing a Search Within, the new search results state should announce itself to screen readers (currently nothing is read out).  PDF Viewer: Search Within does not have a proper label.  Table Viewer: Filter Table does not have a proper label.  Material Property Search: The dropdown for choosing the operator for each property name does not have a proper label. The Filter by Property Name input is missing a label. The material name search should let users know there are search options, and how to peruse them.  Unit Converter: All of the text inputs in the unit converter do not have labels. |
| [3.3.3: Error Suggestion](http://www.w3.org/TR/WCAG20/#minimize-error-suggestions) (AA)  When the user makes an input error, give suggestions for valid input. | Supports | The error text given is sufficient for error suggestions in most cases. |
| [4.1.2: Name, Role, Value](http://www.w3.org/TR/WCAG20/#ensure-compat-rsv) (A)  For all UI components, the name, value, and role can be programmatically determined. | Does not support | Most custom UI components do not have the proper ARIA attributes, and therefore, cannot communicate their state changes and roles to screen readers effectively.  **Exceptions:**  Header: The search button's labels should just be "Search".  Navigation: The dropdowns in the navigation panes need aria-expanded attributes. The '>' button for unit conversion does not have button text.  Homepage: Tabs need appropriate ARIA markup. The Search button is unlabeled. The Engineering Newsfeed toggle does not have a descriptive label.  Browse: Tabs need appropriate ARIA markup. Apply aria-selected="true" to the active button (All Content, My Subscription) and aria-selected="false" to the inactive button. The chevron icons that expand/collapse the topic areas have labels that need to change upon expanding the topic list.  Search Results: Tabs need appropriate ARIA markup. The Sort By dropdown button needs aria-expanded. Share Search Query modal dialog needs dialog roles and ARIA markup.  Table of Contents: The Expand/Collapse elements in the table of contents need proper labels and aria-expanded attributes. In the "New In…" section, the "…" buttons need proper labels and aria-expanded attributes.  PDF Viewer: All links on the page that cause same page changes, such as the Expand/Collapse table of contents elements, should be button elements. The Expand/Collapse elements in the table of contents need aria-expanded attributes.  Table Viewer: All links on the page that cause same page changes, such as the Expand/Collapse table of contents elements, should be button elements. The Expand/Collapse elements in the table of contents need aria-expanded attributes.  Material Property Search: The expandable content within the property name section needs to be given aria-expanded attributes. The Remove 'X' button for removing properties does not have a proper label. All of the interactive Property Names should be buttons (button elements or role="button"). The Property Names should be labelled in way that describes that activating them will add them to the search.  Unit Converter: The currently selected button for notation should be given aria-selected="true", and the others given aria-selected ="false". The Select Input/Output Unit and New Unit buttons need to be given aria-expanded attributes. The downward arrow to open Gauge Conversions does not have any button text. The Flip Units and Clear All buttons in the unit converter need button text. |
| [4.1.3 Status Messages](https://www.w3.org/TR/WCAG21/#status-messages) (AA)  In content implemented using markup languages, status messages can be programmatically determined through role or properties such that they can be presented to the user by assistive technologies without receiving focus. | Does not support | When saving preferences or search results, a status message appears that does not communicate to assistive technology. |
| **Multimedia** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [1.2.1: Audio-only or Video-only (Prerecorded)](http://www.w3.org/TR/WCAG20/#media-equiv-av-only-alt) (A)  Provide alternatives for pre-recorded audio-only or video-only content. | Supports | There is no pre-recorded audio-only or video-only content. |
| [1.2.2: Captions (Prerecorded)](http://www.w3.org/TR/WCAG20/#media-equiv-captions) (A)  Provide captions for pre-recorded audio | Supports | There is no pre-recorded audio or synchronized media in the applications. |
| [1.2.3: Audio Description or Media Alternative (Prerecorded)](http://www.w3.org/TR/WCAG20/#media-equiv-audio-desc) (A)  Provide alternatives for pre-recorded synchronized audio/video | Supports | There is no synchronized media in the applications. |
| [1.2.4: Captions (Live)](http://www.w3.org/TR/WCAG20/#media-equiv-real-time-captions) (AA)  Provide captions for live audio in synchronized audio/video. | Supports (N/A) | There is no live audio in synchronized audio/video. |
| [1.2.5: Audio Description (Prerecorded)](http://www.w3.org/TR/WCAG20/#media-equiv-audio-desc-only) (AA)  Provide an audio description of pre-recorded video. | Supports | There is no pre-recorded video in the applications. |
| [1.4.2: Audio Control](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-dis-audio) (A)  Audio can be paused and stopped, or the audio volume can be changed. | Supports (N/A) | There is no automatically playing audio on the site. |
| [2.2.2: Pause, Stop, Hide](http://www.w3.org/TR/WCAG20/#time-limits-pause) (A)  Users can stop, pause, or hide moving, blinking, scrolling, or auto-updating information. | Partially supports | There needs to be a way to stop the constantly changing placeholder text in the search field on the Homepage, as well as the changing placeholder text in the Material Property Search field. |
| **Usability** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [2.2.1: Timing Adjustable](http://www.w3.org/TR/WCAG20/#time-limits-required-behaviors) (A)  Users are warned of time limits shorter than 20 hours and time limits can be turned off or extended | Supports (N/A) | There does not appear to be a session timeout. |
| [2.4.5: Multiple Ways](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-mult-loc) (AA)  More than one way is available to navigate to other web pages. | Supports | All pages can be accessed in multiple ways. There is also a sitemap in the footer. |
| [3.2.2: On Input](http://www.w3.org/TR/WCAG20/#consistent-behavior-unpredictable-change) (A)  Changing the setting of a checkbox, radio button, or other UI component does not trigger unexpected changes in context. | Supports | User inputs do not cause unexpected actions. |
| [3.2.3: Consistent Navigation](http://www.w3.org/TR/WCAG20/#consistent-behavior-consistent-locations) (AA)  Navigation menus are in the same location and order on every web page. | Supports | Navigation menus are consistently in the same place and in same order. |
| [3.3.4: Error Prevention (Legal, Financial, Data)](http://www.w3.org/TR/WCAG20/#minimize-error-reversible) (AA)  For web pages with legal or financial commitments, input can be reviewed and corrected before final submission, and submissions can be reverted. | Supports | There are no submissions which require legal or financial commitments. |
| **Mobile User Experience** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [1.3.4 Orientation](https://www.w3.org/TR/WCAG21/#orientation)  (AA) Content does not restrict its view and operation to a single display orientation, such as portrait or landscape, unless a specific display orientation is essential. | Supports | Knovel does not restrict its view to a single orientation. |
| [2.5.1 Pointer Gestures](https://www.w3.org/TR/WCAG21/#pointer-gestures) (A) All functionality that uses multipoint or path-based gestures for operation can be operated with a single pointer without a path-based gesture, unless a multipoint or path-based gesture is essential. | Supports (N/A) | Knovel does not use any multipoint or path-based gestures. |
| [2.5.2 Pointer Cancellation (A)](https://www.w3.org/TR/WCAG21/#pointer-cancellation)  For functionality that can be operated using a single pointer, at least one of the following is true:   * No Down-Event * Abort or Undo * Up Reversal * Essential | Supports | All interactive content functions through the Up-Event, allowing users to potentially move their pointer off the component to cancel. |
| [2.5.4 Motion Actuation (A)](https://www.w3.org/TR/WCAG21/#motion-actuation)  Functionality that can be operated by device motion or user motion can also be operated by user interface components and responding to the motion can be disabled to prevent accidental actuation, except when:   * Supported Interface * Essential | Supports (N/A) | There is no content on Knovel that utilizes device or user motion. |